

SEPTEMBER, 1878.



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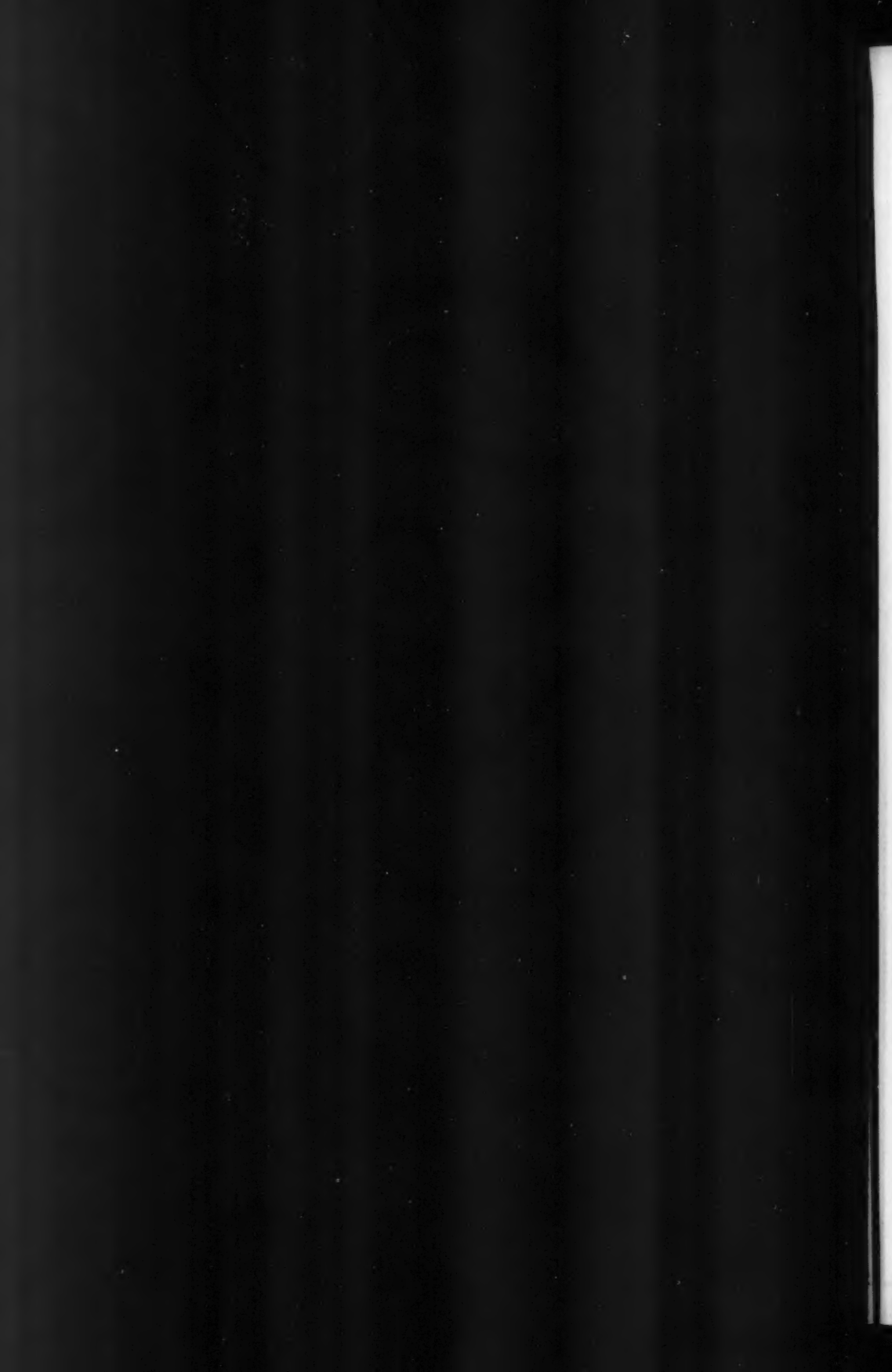


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# THE AMERICAN FARMER.

"O FORTUNATOS NIMIUM SUA SI BONA NORINT  
"AGRICOLAS." . . . . *Virg.*

PUBLISHED BY SAM'L. SANDS & SON, BALTIMORE, MD.

VOL. VII.—No. 9.]

SEPTEMBER, 1878.

[NEW SERIES.

## Improving Poor Lands.

*Messrs. Editors American Farmer :*

There can be no subject of more importance to the world than this, because in its last analysis it involves the question of meat and bread ; and while in the correspondence you have elicited the various plans proposed have interested, they have served rather to confuse than to enlighten me.

One considers lime all that is necessary, another plaster, one turning under clover or other green crops ; but sheep seem to stand ahead of all of them.

It is admitted on all hands that any land known poor may be brought to any desired degree of fertility by a sufficient expenditure of money ; but what we need is some plan, the adoption of which is in the reach of every farmer, and which shall yield a regular profit upon the expenditure, while it progressively and permanently improves the land.

Doubtless some one, perhaps any one of these plans may temporarily increase the production of almost any land ; but if any one, or all of them together will permanently effect that result, certain things which seem to be settled as agricultural axioms are but idle and delusive theories, which have produced and are still producing ruinous effects upon the farming interests of the country ; in other words the farmers under their influence have been for many years uselessly expending millions of dollars for what are called "commercial fertilizers," and that is what confuses me.

These axioms, if I may so call them, which agricultural chemistry claims to have established, are :

*First*—That there are certain mineral ingredients, a portion of every one of which is indispensable to the production of a perfect plant.

*Second*—That these ingredients are supplied by the soil alone.

These things being true, it follows that every plant produced by and removed from the soil takes from it a portion of each of these ingredients.

And this being true, one or two conclusions follow : Either that all of these ingredients exist in the soil in inexhaustible quantities, or that the fertility of no soil can be maintained unless as much of each of these ingredients is returned to it as is taken from it, nor improved without adding more than is taken off.

But the experience of the world in all ages had proved that the continued removal of production, whether by cultivation, pasturage or any other means, without any return, ultimately renders the most fertile soil barren and unproductive.

I propose to examine these several plans to which I have referred, and try them by these well-established facts and principles ; and as what claims to be the intelligence of the country has settled to its own satisfaction that sheep husbandry is the great panacea not only for the recovery of poor land, but for relieving the country from its poverty, I take it first in order :

It is constantly asserted that sheep will enrich poor land. Upon this subject we have "line upon line, precept on precept," and as I once heard it rendered by a preacher "here a little and thar a great deal."

Now, if this is true to half the extent claimed for it, the whole problem is solved, not only as to the means of reclaiming poor land, but of enriching all land without limits. If they can enrich poor land, they can of course make rich land richer ; and all we have to do to make all our lands as rich as the delta of the Nile, or the Mississippi bottoms, is to get a flock of sheep.

But what becomes of the idea that the fertility of the soil cannot be increased without returning to it more than is taken off ? What can the sheep return more than he takes off ? Or of the idea that it cannot be maintained without returning as much as is taken off ? If the lambs and wool are sold every year, how is the waste to be supplied ?

If a farmer has rich bottom land upon which fertilizing matter is annually deposited by overflow, upon which he can pasture his sheep in the day and fold them on poor land at night, the poor land will in the course of time grow rich

without injury to the other. Few farmers have such a piece of inexhaustible and constantly replenished land to appropriate in that way. Or if he will pasture them on poor land in summer and feed them plentifully on it in winter from the products of other lands, the poor land will grow rich, but what is to replace the material drawn from the other?

I know a man who having a large flock of sheep rented an adjoining farm upon which he grazed them in the day and folded them on his own at night. He also raised on the rented farm a large crop of turnips, oats and corn, which he fed to the sheep in the winter upon his own. His was enriched, but how about the other? Most men would say, this was enriching one man's farm at the expense of another's. Suppose both belonged to the same man; the only change that would be necessary—one farm at the expense of the other. Suppose it was all one farm; then it would be—one part of the farm at the expense of the other part.

I will suggest to those men who have such deep and abiding faith in the truth of this theory, an experiment by which they can demonstrate its truth to the country, confer a great benefit upon the world, and enrich and immortalize themselves.

It is claimed that any farm can, in addition to the other necessary live-stock, keep one sheep for every acre of improved land, including pasturage. If any one chooses to make the experiment, I will do better and allow him one full acre to each sheep without any other stock. Let him in the spring of the year put a hundred ewes on a hundred acres of poor land. They will do very well in spring, summer and fall; but how about winter? We will provide for that too. Since sheep can live and thrive upon bushes, briars and noxious weeds, and they will have no other stock to divide with, seventy-five acres will be enough for them, and he shall fence off twenty-five acres to put in oats in the spring for winter forage; after the oats are off he shall sow it in rye for winter and spring pasturage until grass comes.

Having put a couple of bucks with the ewes in the fall he will in the following spring have a hundred lambs; in the meantime the seventy-five acres have been so enriched by pasturing it spring, summer and fall and feeding the oats on it in winter, and the twenty-five acres by pasturing it in the spring, that there will be abundance of good grass for all. The buck lambs and wool will of course be sold off in the spring, being a clear profit, besides the ewe lambs which will be reserved to increase the flock; for the more sheep there are the further the land will be enriched, and the richer the land becomes the more sheep it will support.

By this process, besides the large and regularly increasing annual profit from the sale of male lambs and wool, he will in a few years have a thousand fat sheep and a hundred acres of land as rich as Canaan was when it produced grapes the transportation of one bunch of which required the strength of two men and afterwards produced of grain "some thirty, some sixty and some an hundred fold." And all this out of nothing; for we must bear in mind that nothing

has been added to it from the outside but the few seeds with which he began. And at the end of the time, besides the fat sheep and the rich land he has a hundred times as much seed as he started with.

For six thousand years, according to the best accounts, the world has been striving in vain to make something out of nothing. Eureka! sheep husbandry solves the problem.

There is one obstacle to the full and perfect success of this experiment—that great bugbear to sheep husbandry, "the worthless cur." This is easily obviated: he must have a fence to keep the sheep in. Success would abundantly compensate for the additional expense of making it high enough to keep "the worthless cur" out.

To the ignorant, or those who have not investigated the subject, the foregoing calculation may seem to savor of extravagance; but when they see what has been done elsewhere they will find it largely within the bounds of moderation.

Gen. Meem, recognized as high authority in all things pertaining to sheep husbandry, says: "According to the Hungarian census of 1870, that country had 15,077,000 sheep, an increase in thirteen years of 33 per cent., while horses only increased 3 per cent., cattle declined 6 per cent., and swine in a less degree. In middle and lower Hungary there are districts having as many as 5,000 to 6,000 sheep per square mile."

This, according to my arithmetic, is in the one case nearly eight and in the other one nine sheep to the acre, besides cattle, horses, swine and people.

He proceeds: "In Hungary proper, the number per square mile was 3,197, and 1,072 for every 1,000 inhabitants."

This is 2,982 inhabitants to the square mile, nearly five sheep and over four inhabitants to the acre, besides horses, cattle and swine. I confess I was startled by this statement, as I had somehow got the impression that Belgium, with something over 400 to the square mile, was the most densely populated country of the earth. But there is the statement of a highly respectable and intelligent gentleman in an article on sheep husbandry, prepared by the request of the Commissioner of Agriculture of the State of Virginia for his first report to the Legislature; and as I have never seen it questioned or challenged by any member of the Legislature, or anybody else, I shall not, for the present at least, question its correctness.

Now, if sheep husbandry has brought a whole country to a condition of fertility, which will support nearly five sheep and over four inhabitants to the acre, besides horses, cattle and swine, why should it be deemed incredible that this marvelously fertilizing power should bring land in this country to a point at which, being burdened with the support of neither people, horses, cattle or swine, it should abundantly support ten sheep to the acre.

It is regularly flaunted in the face of the country that sheep and turnips have made England agriculturally. Those who make that assertion forget that in addition to her large resources of fertilizing material, in her lime, coprolites, sea-weed and other productions of

the sea, she had for a long time, to a large extent, a monopoly of Peruvian guano; that for more than half a century she has been scouring the world for bones; that she has imported hundreds, perhaps thousands, of millions of tons of corn, wheat, linseed and cotton-seed oil cake, beef, mutton, pork, bacon and cheese; and that she has for years been importing largely of South Carolina phosphates and German potash salts, and has exported literally nothing of the mineral elements of fertility but a few fine live-stock.

It is this system that has made the land which produced the sheep and turnips, and not the sheep and turnips that have made the land. It is just as rational to ascribe the agricultural condition of England to her fine cattle, horses and hogs as to her sheep and turnips.

Sheep, like any other live-stock, well cared for may, within certain limits, be made profitable without exhausting the land like cultivated crops; but unless those things I have called agricultural axioms are delusive and hurtful theories there is not an acre of land on the Continent which would not be ultimately impoverished by sheep husbandry provided it received nothing from any other source.

Errors of opinion in the every-day affairs of life necessarily lead to injurious and often to ruinous errors of practice. The improvement of our poor lands is a matter of too vital importance to permit us to waste our energies and our scanty means in the attempt to realize a theory which promises everything for nothing and must necessarily end in disappointment and disaster.

It is time that some enthusiastic advocate of the enriching power of sheep shall demonstrate, not that they will enrich one part of a farm at the expense of the other, but that they will enrich the whole farm without extraneous aid, or that they shall be less confident and less importunate in urging the experiment upon others.

It was my purpose to say something upon the profits of sheep husbandry while upon the subject, but this must be left for another communication.

JAMES N. BETHUNE.

Fauquier Co., Virginia.

### Experiments with Wheat and Oats.

*Editors American Farmer:*

I enclose you a report of this season's trial of wheat and oats.

JOHN I. CARTER.

*Eastern Pennsylvania Experimental Farm, }  
August 14, 1878. }*

### Experiments with Wheat.

The ground used in these experiments was a wheat stubble, plowed soon after harvest. It lay until September 25, when a light dressing of mixed fertilizers was sown on it, and replowed, shallow. On September 28, the following varieties were sown (broadcast) on eight-acre plots, at the rate of two bushels per acre. When threshed, the following was the result:

Variety.	beard'd or smooth	color of grain	yield per acre.	time of rip'n'g	straw per acre.
Clawson .....	smooth	white	32.00	July 2	3,072
Fultz .....	"	white	32.08	June 28	2,592
White Chaff Med. ....	beard'd	red	28.44	July 9	2,220
Heiges' Cham Am'r .....	smooth	amb'r	27.62	"	1,848
Heiges' Prolific .....	"	"	30.40	"	1,160
Washington White .....	beard'd	white	31.12	"	2,784
Eureka .....	smooth	"	32.48	"	3,260
Gold Dust .....	"	"	31.24	"	3,040
Glick .....	beard'd	"	28.56	"	2,352
Gold Medal Arn'd .....	smooth	"	31.64	June 28	2,552

NOTES.—The Clawson and Fultz have done equally well for several years. The Fultz is about one week earlier, and stands up better, but the straw is not so heavy. The Mediterranean neither yields nor stands up well. The Champion and Heiges' Prolific are two hybrids of the Fultz, from John M. Heiges, of York, Pa. They have not proved particularly valuable to us, the Champion being quite light-strawed. The Washington and Eureka came from central Pennsylvania, presented to us by Joseph Baker, of Centre county. The Washington White has a splendid large berry and good strong straw.—The Eureka somewhat resembles the Gold Medal, but more productive. The Gold Dust came from the Agricultural Department, Washington—has a nice white plump grain, and the stiffest straw I have ever seen growing. The heads blighted some and it was a little late, otherwise it could be recommended for very strong land or heavy manuring. The Glick is a white-bearded wheat from near Allentown, Pa., but of no especial promise. The Gold Medal is one of Arnold's hybrids, nice and white, but not especially valuable.

The following varieties were sown in smaller quantities, and the accompanying notes made:

Arnold's Victor, Colorado Wheat, Nevada Rye or Diamond Wheat, White Rye, Louisiana, Grecian, Progress, Amber, Kentucky, Diehl, Tappahannock, Muskingum, Arnold's Hybrid, Red May, Shoemaker, White-Blue Stem, Michigan Amber, Bayard, Bengal White, Treadwell, German Amber, Flinn Bran, Russian, White Rogers, Michigan Wick.

NOTES.—Arnold's Victor came from Canada, highly recommended, but proved utterly worthless with us, blighting badly and being quite late. It is a white, smooth wheat.

The Colorado wheat and Nevada rye came from C. B. Rogers, Philadelphia. The wheat was not a success, but the Nevada rye had good heads of long light-colored grains, almost transparent. The straw was not long, but stood the winter well. It is worthy of some further trial. The Grecian is a new white smooth wheat, largely puffed, but worthless in this section. Specimens of other varieties are herewith exhibited, but they possess no especial interest. The following experiments were made to test fertilizers on wheat, the conditions otherwise being the same as before related. The variety of wheat used in the experiments was Gold Dust. The cost of fertilizers was at the rate of \$8 per acre:

	Wheat per acre.	Straw per acre.
Stockbridge Wheat formula.....	32.04-60 bu.	4,140 lbs.
No Fertilizer.....	30.24-60 do.	3,840 "
Poppin's silicated Super-phos. 30.32-60 do.		3,832 "
A. A. Nitrogen.....	32.08-60 do.	4,376 "
Challenge or high-grade S. P.....	33.48-60 do.	4,980 "
Challenge sown and harrowed.....	29.08-60 do.	3,420 "
Spring cultivation.....	24.48 60 do.	3,168 "
Uncultivated.....	31.30 60 do.	3,820 "

In the above cases these fertilizers have evidently done but little good, and the only fact worth noticing is the gain in lightly plowing down the Challenge Phosphate over sowing it on the surface and harrowing it in. Our experience in cultivating wheat is still unfavorable to this much-talked-of system. I think there must be some peculiarity in our soil that renders cultivation for this crop unnecessary, as all our previous experiments have resulted much like the present one. What is singular we can notice no increase in the length of head from cultivation, and as there are fewer stalks there must be less grain. The wheat on this plot was sown in drills, five inches wide with a space of fifteen inches between, sowing about one bushel of seed per acre. April 20, we ran through the spaces with a one-horse cultivator; and May 3d we ran through them with a small subsoil plow, loosening up the ground ten inches deep and finished by dressing up with a Hexamer hoe.

#### Varieties of Oats.

We made the following experiments to test the varieties of oats, their products, time of ripening, &c: We selected a piece of corn-stalk ground plowed, then harrowed in a light coat of dissolved South Carolina rock, sowed the oats March 28th, at the rate of 2½ bushels per acre, covering with a harrow. When cut and threshed the following results were noted:

Varieties.	wgt	color.	time.	yield.	straw.
Irish Oats.....	39½	white	7-17	46.28-52	4,160 lbs.
Ardres King.....	36½	yel'w	7-30	60.12-32	5,188 "
Canadian.....	31	white	7-14	37.8-33	3,628 "
Waterloo.....	32½	white	7-15	31.	3,396 "
White Dutch.....	33½	white	7-15	39.12-32	3,380 "
White Schonen.....	31½	white	7-19	48.16-32	4,304 "
Lyell.....	28	dark	7-10	64.	2,400 "

The Irish oats is of recent importation; came to us from Captain Ingram, of Oxford, Pa., was said to weigh over 40 pounds per bushel, and to yield over 80 bushels per acre. The grain is white and plump, and the straw strong and tall. The Ardres King Oats came from New York; has heretofore been our most productive variety, is a long-grained yellowish oats with a heavy stiff straw, is rather late, which has been my principal objection to it, but this year its lateness and heavy straw enabled it to tide over the hot dry weather.

The Canadian Waterloo and White Dutch came from the Agricultural Depot, Washington. The grain of each was white, plump and handsome, and last year weighed well; this year more than half the grains had no kernels.—They ripened early and had weak broken straw. The white Schonen came from western Pennsylvania, is a good white oats, with a strong straw, but late.

The Lyell oats came from Richmond, Va., is a dark bearded oats with short stiff straw. It was

sown several days after the other varieties and ripened at least a week sooner. It was too early to be affected by the heat or drought and made a fine yield. The appearance of the grain is the principal thing against it.

#### Varieties of Wheat.

Messrs. Editors American Farmer:

You request the experience of your subscribers in wheat-growing the late season, especially as I understand as to varieties of wheat. So far as my experience and observation extend the Fultz is the best variety for this section; the Clawson, judging from this year's crop, is not worth sowing here; I tried it on four acres, and shall certainly lose \$40 as between it and Fultz. My machine has been threshing to-day and part of yesterday about 17 acres of Clawson, which will not make 100 bushels; I think about 85—that is, five bushels to the acre. My own will not yield more than that per acre, and would have made 15 to 20 bushels of Fultz, as it was good land heavily fertilized. So much for wheat. Can you inform me whether any one has tried the growing of fall vetches as a green crop? Could not the cow-pea be utilized here both as an improver of the soil as a green crop, and also for production of food for stock?

I esteem very highly your valuable magazine, and have often thought of contributing to it some of my experience in farming in Virginia. The experience of others I find the most useful to me of anything in agricultural journals. Accept of my well wishes for your continued success, and believe me, truly yours,

M. SMITH.

Aspen Hill Farm, Fairfax Co., Va.

[We shall be glad to hear frequently from our correspondent. Can any of our readers advise him on the points submitted?]

The Clawson wheat rusted badly here this year. It takes about one-third more seed than the Fultz, and is very much more liable to rust. Mine was sown October 1st, and it rusted so badly that for a time I thought it would not head out at all, making a very poor yield, though fertilized with 300 lbs. per acre.

It is now 33 years since I commenced taking the Farmer.

J. HENRY STEVENSON.

Iredell Co., N. C.

#### The Haymarket (Va.) Club.

Messrs. Editors American Farmer:

The regular meeting for August was held at "Cloverland," the residence of Mr. Chew. After finishing the routine business of the club, the farm and stock and growing crops were viewed and inspected. An application of about 100 lbs. of fertilizer on the hill was very apparent on the corn, while the same quantity applied broadcast showed little if any difference from the unfertilized portions of the field. A Hereford cow and a Shropshire-down buck were much admired, no specimens of these breeds being in our immediate neighborhood. Our host's aim is



to graze—grain being only sown on fields that are to be reseeded and cleared from weeds. The day of the meeting was exceedingly warm. The call of the host to the sumptuous repast was quickly responded to; and it was generally remarked that while the bachelor members of the club were the stragglers in the field, they were the advance guard when this call was made.

The question of the day,

#### **The Cultivation of Wheat.**

was discussed. The club believes that a good and thorough plowing is necessary to insure success; some advocating decidedly that an early fallow and consequent settling of the ground is necessary. After repeated harrowing the wheat should be sown in our section from the 25th of September to the 15th October, with the drill. The members all agree that this implement is of decided benefit for uniform distribution of seed and fertilizers, saving of seed, and less loss by throwing out in our changeable climate. The quantity of seed sown by the majority varies from  $1\frac{1}{4}$  to  $1\frac{1}{2}$  bushels. On rich land and of the small Fultz wheat the former quantity is sown. It was thought better to sow heavier as the season advanced,—cold and wet spells in October often retarding the germination of the seed. The practice to plow under a clover sod was considered best. Some advocate a refallowing, allowing the "rag weed," which always follows our wheat crops, to grow up, and plowing the same under. Others believe that corn-stubble wheat yields as well as fallow wheat, with less labor, although admitting that a stand of grass is not as surely had—the great aim of the majority of the members. As to the fertilization of wheat, the members agree that the use of commercial fertilizers combined with the stable manure is necessary. The principal brands sold in our section are more or less used, generally at the rate of 200 to 250 pounds per acre,—larger quantities not showing a comparatively larger gain. The experience of the members is that the seasons have a great deal to do to insure success, and that one brand does better on one farm than on another.

The majority of the members believe in sowing the Fultz wheat. While aware that the Lancaster, Amber and Mediterranean bring better prices in market, they believe that the Fultz will more than make up for such a loss by its greater yield. To insure against the fly, later sowing, if the same is numerous, was advocated, as also the harrowing of the wheat in spring. The members believe it well to harvest their wheat when in the "dough" state, quality generally being heavy and color bright. It was remarked that wheat seldom shrivelled when shocked and capped, and that the bearded varieties easily scattered when too ripe. With the small force generally at command during harvest, early cutting is to be recommended. A green streak six inches below the head is to be seen about the time wheat is in the proper state for cutting, and is considered a good indication.

W. L. HEUSER, *Secretary*.

About 1,200 varieties of grasses grow within the limits of the United States. So says Prof. Collyer, of the U. S. Agricultural Department.

#### **Enterprise Club.**

##### *Messrs. Editors American Farmer :*

Notwithstanding the persistent rain of August 10th, twelve members and a good number of guests assembled at the house of E. P. Thomas. The weather prevented an extended walk.

The forest trees around still bear strong marks of the April hail storm; the black oak and maple trees showing it most. A small stack of wheat near the barn was all that escaped the storm from thirty-five acres. The fruit trees on this place were badly injured also, many young peach trees having died outright.

Our host may be a good farmer, (how could he be otherwise, being a member of the Enterprise Club?) but things generally about the place seem to be in a sort of transition state; even down to the potato bugs, of which family there were several representatives on a patch of twelve acres.

A butter dairy is carried on to some extent here in connection with other general farm crops. The cows are principally grade Jerseys and are much preferred to any common stock that can be purchased. In making butter a horse-power revolving churn, of a capacity of 100 lbs., and Embree's Rotary butter-worker are used with a good saving of time and labor, making churning day a pleasure rather than something to be dreaded. The butter is sold wholesale to a dealer in Washington City, netting at home thirty-three cents per lb., in this dulllest of dull seasons. T. J. Lea had on exhibition a fine specimen bull of the Short-horn variety, weight about 2,000 lbs. Mr. Lea is a member of our stock committee and has done much towards improving stock in this vicinity,—not only Short-horn cattle, but sheep, Berkshire swine and mules.

Asa M. Stabler furnished an exhaustive article on the subject of establishing a creamery, accompanied by a letter on the same subject by Joseph A. Stouffer, Wakefield Valley Creamery, Carroll county, Md. Some encouragement was given to the enterprise, but our farmers would scarcely be satisfied with a cent a pound for their milk.

W. S. Bond described a wheat drill he had heard of in Cincinnati for sowing and afterwards cultivating wheat.

Joseph T. Moore called our attention to the self-propelling steam thresher being used in the adjoining county as a dangerous automaton to be placed on the public highway, appalling the most tractable horses. He also stated the owner of the machine had been called upon to give bond as security for any damage that might occur from its use on the highway.

#### **Questions and Answers.**

B. H. Miller asked if he should plow down his German millet for wheat or sell it off the place at \$6.00 per acre. He was advised unanimously to plow it down—he having abundance of provender without it.

W. J. Thomas asked what disposition members made of their barn-yard manure, to which there was a very general answer that it was hauled out and applied in the spring. Friend Thomas said he was gratified to find the members of the En-

terprise Club so far advanced in that respect. W. W. Moore said he believed one load of manure was worth as much in the spring as it was in the fall, and there were so many more loads in the spring than there would be if left in the yard until autumn.

What is the best time to fill in wash furrows? Now, with oats and grass-seed sown, to form a sod.

What is the best harrow for general farm work?—The double A harrow is preferred.

What is hay worth as compared with straw as an absorbent?—About two fifths more.

What time to plow in field-peas?—Plow when in bloom or just before the seed are ripe.

Are wash furrows any advantage?—This question was referred to Chas. H. Brooke as the subject for an essay, and we then adjourned to meet next month at the house of that gentleman.

Very truly yours, N. E. D.

Sandy Spring, Aug. 17, 1878.

### The Deer Creek Farmers' Club

Met on the 10th ultimo, at the residence of Mr. Geo. R. Glasgow, whose farm, buildings, live-stock, &c., were inspected in accordance with the usual programme, and found all to be in good condition. The subject under discussion by the club was

#### Timothy,

and we take from the *Egis* the following report:

Mr. Geo. R. Glasgow preferred timothy mixed with other grasses for pasture, and also for cutting hay for his own stock. If the hay is intended for market, would prefer timothy alone. Some contend that timothy exhausts the land. What crop does not, if cut year after year without manuring? Timothy should be top-dressed every second year. He pastured his timothy two or three weeks, and had more and better hay than if it had not been pastured. Stock will not eat coarse timothy. Timothy alone will bring a better price in market than any other hay. Livery-stable keepers prefer it because horses will not eat much of it.

George M. McComas endorsed Mr. Glasgow's views, and added that timothy brought also a higher price for shipping purposes, for the same reason, because it was chiefly sold to livery-stable keepers in the cities. He thought the Deer Creek Farmers' Club was doing a great deal of good, and alluded to the remarkable progress in agriculture in Harford county during the last fifteen years. He spoke of the institution of an agricultural society, and the new mode of mending roads by contract, both of which had been brought about mainly through the influence of the club.

Thomas Lochary said he was in favor of sowing timothy for mowing and pasturage. Stock prefer a variety of grass and hay, and do better on it. Timothy helps to keep weeds down. For feeding at home mixed clover and timothy is best, but for market timothy alone will bring the best price.

Wm. Munnikhuisen sows timothy, but did not think it improves land. On poor land we had better sow clover alone, but where the land is of

sufficient strength timothy mixed with other grasses is better. Timothy hay is much over-rated. He would rather have good clover hay for feeding. It will keep a horse in better condition than timothy. It is, however, the only marketable hay we have. Sows timothy before the drill, with wheat, in the fall, about one bushel to six acres. You can improve poor land with clover, but not with timothy.

Henry S. Gorrell was "down on timothy," and thought it as great a curse to land as whisky is to the human family. It has a short root and sucks out all the nourishment from the land. Clover is superior to timothy as a pasture or to improve land. Since war times everybody has taken to raising timothy. The sooner we abandon it, the better for our land and the better for our pocket. Has never known a good crop of any kind to be raised after it unless the ground was heavily manured.

R. B. McCoy said that raising timothy or not depended upon what you desired to do with your farm. On a grazing farm you cannot do without timothy or orchard grass to mix with clover. If for ordinary agricultural purposes you can do better without timothy. Plaster and clover have brought the Deer Creek lands to their present fertility. Clover sod is better than timothy for wheat or corn. Timothy exhausts the soil.

John Moores agreed with Messrs. Gorrell and McCoy. One crop of timothy exhausts the soil more than any crop we can take off the land. He regarded timothy, politicians and potato bugs the great curses of the agricultural community. The politicians and potato bugs you can get rid of, but timothy you cannot. Timothy ought not to be sown unless there is a prospect of getting \$30 or \$40 a ton for it. Then it might pay, as we could afford to put something on the land. Timothy is a decided curse and the sooner we abandon it the better. Every farmer ought to have a permanent pasture. Then he would never fail to have a crop of corn and clover. For hay, clover is greatly superior to timothy. The difference in market value is not more than \$2 a ton, and clover will fatten cattle better than anything else will. You cannot raise any crop after timothy without fertilizing, and any crop that comes after clover is better than timothy.

H. S. Gorrell again spoke earnestly of the mistake farmers were making in sowing timothy, and said if we looked back we would see that our fathers never put in a crop of wheat and failed to raise it. They did not use a pound of artificial fertilizers. When the war came on we quit raising wheat and raised timothy. This year the farmers of the county had to put on hundreds of tons of bone to raise a crop of wheat on the land that has been impoverished by timothy.

Geo. H. Gorrell did not think much of fattening cattle on clover alone. By sowing timothy with clover, the timothy will gradually kill out the clover. The clover roots will feed the timothy for a year or two after the clover tops disappear. Timothy is the best fattening grass.

Jas. Lee was opposed to timothy and thought blue grass and orchard grass good substitutes.—The former does well here. Sows some timothy,



from force of habit, but thinks it wrong. Prefers clover hay for horses or anything else. It will fatten cattle and horses much better than anything else.

R. Harris Archer thought we should sow timothy, as it was better to have it than weeds. Timothy is sure to take and you will have something on the ground. If you sow clover and it fails to come up, you have nothing on the ground in the spring. Cattle will fatten better on mixed grasses than on clover alone. We ought to sow all kinds of grasses; then if one misses the others may hit. Kentucky blue grass is a good grass mixed with other things. It will not pay here to raise timothy to sell. We are too far from navigation. Timothy will pay when it nets \$12 an acre. You cannot make so much from a corn crop, considering the labor of raising it.

W. G. McCoy believes in mixing grasses and not in sowing one alone. Did not see how we could get along without some timothy.

Wm. F. Hays was opposed to timothy. It is a great drain on the soil. As for hay, nothing can compare with well-cured clover for fattening purposes.

Mr. Archer said it was a good way to turn cattle out on clover and timothy early. Let them stay till the first of June; then take them off and cut after harvest. It will then make the best kind of hay.

S. B. Silver said he had noticed a great deal of timothy scattered over his pasture field. Early last spring he pastured it very close. Since then it has come up and is now in head. His stock do not appear to have eaten it since.—Timothy is hard on ground.

James Glasgow had a better opinion of it than Mr. Moores and others. He approved of mixed grasses, but for the benefit of the soil prefers clover. The objection to it is that it is hard to cure. If well cured there is nothing better for cattle; but for horses, particularly driving horses, he preferred timothy. Timothy must be pastured closely, or cattle will not eat it.

S. B. Bayless had never sowed anything but timothy and clover, and thought he could not get along without timothy sod for fattening cattle. Tries to mow timothy when in bloom.—It makes good pasture through October. He likes timothy for feeding horses, alternating it with fodder or oat straw; but clover may be better for cattle or cows.

George E. Silver, the Secretary, said he was not much of an advocate for timothy, and thought it a little hard on soil; yet in our method of farming we must have it to a certain extent. If we were raising grain he would not sow timothy, but would prefer mixed grasses. For cattle timothy comes in well for late pasture. They should be turned on before the timothy gets too tough. Cattle will not eat it when it has gone to seed.

Johns H. Janney, the President, agreed with Mr. Glasgow that timothy was good in its place, but not much of it should be sown. Is decidedly in favor of it for driving horses. Clover hay is apt to give horses the heaves, especially if not saved carefully. Clover is the greatest fertilizer we have, and he makes it a point to sow one field every year to plow down.

Geo. E. Silver desired to know what effect it would have on briars, if you plow a field in August, get a crop of wheat from it and then follow by wheat again.

Mr. Moores thought if you plow in spring, sow oats, and follow the oat stubble with wheat, you would not be troubled with running briars.

Mr. Bayless remarked that barn-yard manure will kill out running briars.

Adjourned to meet at S. M. Bayless' on the 14th of September.

Question for discussion: "What variety of wheat is most profitable in this county; when is the best time and what is the proper quantity to sow?"

### Winter Oats.

*Editors American Farmer:*

This crop has been attracting some attention for the past two or three years, since the agricultural journals have given some notice of it. Till that time, though cultivated for more than two generations in the mountains of east Tennessee, it was not known within fifty miles of the place of its cultivation. This winter crop is as distinct a variety and as different from the crop sown in the spring as winter spring wheat is different from that sown in the fall, and when sown early, in time to give it a good root, it will stand any Northern winter that you have here in the State of Maryland. It has grown the past year in the West, and as far North as Pennsylvania and New Jersey. It has many qualities to recommend it for general cultivation, particularly where the spring is short and the summers hot and dry. It grows tall on poor land that would not produce a paying crop if sown in the spring. From the fact that it grows slow, the stout stalk bears up the heavy-laden head, without lodging or falling. The yield is more than double, and the grain fully one-fourth heavier in weight to the measured bushel; hence, a very superior article for oat meal for family food. It makes the best of late fall pasture, and poor, partially worn-out corn lands can be improved to a profit by plowing under the stubble year after year, and reseeding by the shellings of the harvest.

Greene Co., Tenn.

EDWIN HENRY.

### Carrots for Horses.

At Cornell University they have been feeding their work teams liberally with carrots the present winter, and the experiment has proved this crop to be one of essential value for feeding to horses. One bushel of carrots and one bushel of oats, fed in alternate meals, are of equal value with two bushels of oats alone, while they can be grown at a much less expense. Henceforth carrots will profitably replace one-half the oats that we have fed. Horses, like human beings, require a variety of food, and thrive best upon a ration that involves a change of diet. Succulent food, in part, will always prove beneficial, and this is best afforded by carrots.

## OUR FRENCH LETTER.

*Messrs. Editors American Farmer :*

**The International Agricultural Congress** only skimmed rural economy, and that not very profoundly. It is to be hoped that some compilation of the documents and essays not read will be made, so that some exact although not general ideas may be had on the state of agriculture over the world. It is not necessary to weight these coming official volumes with the history of agriculture—leave all that for the antiquarians; we want the living present and the possible future. The congress did not touch upon the systems of culture and of farm management peculiar to various nations, nor on the habits, the agnominical manners, in a word, of a State. Now, these are just the essentials the practical farmer requires to know: what are the phases through which modern farming has passed to arrive at its present scientific and remunerative standpoint; for if schemes of cultivation be not profitable, all the science at their back will never lead to their adoption. The farmer desires to have, as it were, the biographies, the written photographs, if the paradox be allowed, of farms, offering a parallel when not an identity with his own.

Agriculture can never be other than in a progressive condition. There must be no sitting still, as with the Egyptians of old. To succeed, the agriculturist must work hard, possess a great spirit of order, and a perseverance that will never fail. Even these qualities do not invariably lead to success. To intelligence and the power of initiation must be added capital; and it is not so much the amount of the latter that is required as its judicious application. Farming is becoming an industry, very much akin to manufactures, where the eye must ever be on the watch for improvements to cheapen production and secure economy. In France, for example, the road to success lies in a mixed system of culture—that is, where the rearing of stock will enter as an important cipher. Sheep, not for wool, but for meat, either in the form of mutton or of lamb, and the dairy products in the shape of milk, butter and cheese, to say nothing of the poultry-yard. The production of cattle implies the increased production of fodder. The demand for meat is greater than the supply, while the price of grain, owing to its greater facility of transport, must remain at something like a common average. Perhaps the same remarks will apply in a relative sense to hay.

At the congress, the most popular question, because extremely vital, was that respecting the importation of meat, whether on foot or preserved. South America, Texas, the States, Canada, Australia, allege they can despatch unlimited supplies to the markets of old Europe; but the cry is, still they do not come. Liebig's Extract dominates the market. One speaker asserted Australia could place in the French markets mutton at six sous a pound, and that only 25 days are required to ship it from New South Wales to this country. People who are aware letters take about sixty days to reach us, and that Australian mutton is only to

be had for 28 sous a pound, must be excused smiling at the prospect. The fact is, the meat does not reach us, either in the shape of live bullocks, or tins, below butchers' prices. Just now Paris groceries are stocked with canned American meats—Australia does not show. The lowest-priced can of 2 lbs. costs fr. 2.50. The labels are all in English and so are the show-bills! Consignments should be made up specially for the French market, and shippers ought to bear in mind that, excepting ham and bacon, the French abhor salted meats, and have rather an aversion for such as are boiled.

A very natural question to ask, touching the exhibition, is: what progress has agriculture made since the last—that of 1867? In replying on the part of the Continent, the answer will mark the advance for the art in general. Manures and machinery occupy the first letters in the first line. There has been an extraordinary extension in the employment of commercial manures, notably of mineral phosphates, as extracted from several beds throughout Europe. Vegetable and animal life appear to receive a new stimulus from the discovery of this unlimited supply of phosphorous and that chemistry renders soluble and assimilable. The fertility of farms has been doubled and quadrupled by these manures, especially when employed as complements, following the system of M. Chevreul and not that of M. Ville, who regards live stock as an evil and grain crops the one thing needful, if manured after a kind of medical formula, replacing the salts carried off by the grain by a like proportion in the form of mineral fertilizers. Irrigation, in conjunction with commercial manures, has made way in Belgium; the plowing down of green crops is in much favor of late years. Relative to machinery, it tends to replace manual labor in cultivation; the day is coming when farm servants will consist wholly of engineers and carpenters. Live stock has made vast strides in the point of amelioration,—not so much in the adoption of any distinct race as in the crossing of a selected local breed with an imported bull calculated to correct inferior points. Perhaps in sheep-farming the changes in ten years are more remarkable still. In 1877 all were in agony at Australia, South America, &c., cutting out the French clip; the markets have now been left to these countries, and attention transferred to the precocious production of meat. There are some spirits not reconciled to the abandoning of the contest, as they are occupied in securing a breed of sheep that will pay in meat and wool at the same time. It is only necessary to cast a cursory glance at the exhibits of wool from Australia, the Cape and South America, to be convinced how hopeless must be a wool war on the part of the Continental farmers with these countries.

**Preserving Green Food, &c.**

In the feeding of cattle the employment of preserved green food in trenches, for autumn and spring feeding, is a discovery due to M. Goffart, as this gentleman has proved its feasibility and efficacy. The plan enables him to keep more stock and fatten them off more quickly. The practice is becoming very general, and any fodder, no matter when cut, can be suc-

cessfully preserved, and in a sense indefinitely. While the plan is very suitable for dry climates, the northern regions have found a kind of counterpart in the employment of beet pulp, excellent for fattening as for feeding. On the industrial side of agriculture, thanks to the Pasteur process, the silk worm disease—pébrine—has been conquered. The same, however, cannot be said respecting the phylloxera: its march is still onward. All honor to M. Faucon: a perfect cure is obtained by the autumnal inundation of the vineyard, and generous manurings the following spring. In the way of specifics, nothing superior has been found to sulphuret of carbon,—a necessity where irrigation cannot be resorted to. The "distributor," just invented by the Comte de la Vergne, of Bordeaux, enables the preparation to be deposited at the roots of the vine, with mathematical accuracy, without losing even a single vapor of it, or injuring the manipulator by the fumes. By American stocks the vineyards can be replanted.

In the model of farm-buildings at the exhibition, one shown by M. Cuisin deserves special notice. This gentleman is a manufacturer of articles in fancy leathers, and coming into possession of a property he considered that if it was worth managing it ought to be well managed. After clearing away all internal fences, levelling, &c., he planned himself the farm offices and superintended their erection; then he purchased all essential machinery that could dispense with manual labor. His efforts have been successful. I notice that in the distribution of the manure pumps, it can be made to act as a fire engine in case of necessity, and also that the pump for supplying the house with water can be made to flush stables, byres and piggeries.

I have several times drawn the attention of foreign implement-makers to the profitable market they have in France for their goods. At a local machine show at Chalons, some foreign manufacturers sold implements to the extent of nearly quarter a million of francs.

At Molenbeck, in Belgium, an excellent practice has been inaugurated by the local agricultural society. It delegated a commission to examine the pupils and teachers on agricultural subjects, as taught in the primary schools. The examination was public; each teacher was judged by his giving a lecture to his pupils, and the latter were tested by a series of written questions.

Mushrooms are now cultivated in Paris wine cellars; the beds are made up in due form, and hung in iron rows against the walls. Perhaps it is not a joke that some people raised their own mushrooms in chests of drawers in the attic.

Refuse lime from gas works, or the refuse water from same, has been found most efficacious in destroying those small white snails that devour young spring crops.

#### Agricultural Machinery.

The trials of the agricultural machinery were looked forward to with an enthusiastic anxiety. Unfortunately a misunderstanding arose on the subject of experiment and competition; so that

English manufacturers, believing that the conditions and tests, often requiring delicate judgment and extreme care to lay down, could not be secured, abstained from putting in an appearance at the trials for mowers and reapers, at Mormant, on the 22d July—the most important of the two events—and at Petit-Bourg, for tillage machinery, on the 29th following. The public suffered by the absence of the English exhibitors, and the display was thus limited to French and American manufacturers. The visitors were as numerous as they were cosmopolitan. Let it be noted at the outset, that no branch of industry has made the same progress since the 1867 exhibition in comparison with that of agricultural machinery, and that in this line of excellence French makers have marched in seven-league boots. The work of the mowers and reapers was on the whole good, and where well-known names not only held their own, but won fresh honors. Some engines, though rather complicated, not the less acted well. There were a few novelties by McCormick, Osborne and Wood, whose machines bound the sheaves; perhaps knocking them over a little too violently. The mowers worked over 80 acres of fair artificial meadow, and the reapers could not much complain of their battle-field of 600 acres. There were 69 entries instead of 84. The simple reaping machines performed their work admirably, and a Mr. Watson, from Canada, won general approbation for his excellent reaper, which, to other advantages, costs only fr. 350—at home. It would meet the wants of French farmers, but high import duty excludes its employment. If the self binding machine was a wonder for the crowd, not the less so was the steam reaping machine, that one man, the engineer, conducted as if it had been trained. It pushes the reaper before it, and the sweep of the blades is nearly four yards; a solid crank or shaft connects the engine and the reaper, and a Vaucanson chain transmits the power to the machine; a crane attached to the engine permits the reaper to be turned or transported. Messrs. Stratton & Culum, American makers, created something like a sensation with their automatic hay-lifter, for loading carts. It is affixed to the hinder part of the wagon, and plays when the latter advances. It can easily lift hay to the height of 12 feet. Another marvel: M. Albaret in the evening set his steam reaper to work again, aided by the electric light.

At Petit-Bourg the experiments with the tillage implements, though less well attended, were not the less attractive. Two facts were demonstrated: that steam plowing is practicable where the fields approach to plains; and that the double-*Brabant* plow is the implement in vogue for advanced tilling. The two systems, Howard and Fowler, as improved by French manufacturers, were tried side by side; indeed every instrument of tillage, from the most powerful steam plow up to that drawn by a single horse, was tested. At the last moment sowing machines were admitted, where Mr. Smyth, an English maker, took part. But the trials of this class of machines were not of the happiest. The steam plows had a furrow-run of about a fifth of a mile, and they turned up the soil with amazing rapidity. Farm-yard

manure was conveyed by a series of tiny trucks on the temporary field railway, distributed some 50 feet on each side, and when spread was plowed down. One of the chief obstacles to the employment of the steam plow in this country is its cost: hence the importance of the Debains innovation, which, for fr. 12,000, supplies a four-sock plow, claims to turn over 12 acres, five inches deep, per day, at a cost of fr. 60, or at the rate of fr. 5 per acre. The ordinary portable farm engine is made to communicate the power. M. Decauville, who placed his farm at the disposal of the manufacturers, has perfected an admirable system of field tramways for the transport of manures, roots, &c. On the occasion in question it was highly enjoyed, as it conveyed tired visitors from the fields to his hospitable mansion. Other shows and trials are pending.

In connection with these surprising results of steam applied to farm machinery, Professor Sanson lays down that a motive power, represented by a yoke of two animals, or of eight, is superior and more economical than a corresponding force produced from steam.

Paris, July 15, 1878.

F. C.

### The Old Maryland Agricultural Society.

To the Editors *American Farmer*:

I have read with great pleasure and interest the "true account" of the origin and beginning of the "Old Maryland Agricultural Society" from the pen of your senior editor. Its perusal calls up many memories and pleasant recollections of the actors of that day, a large majority of whom are gone, and of the few that remain, among whom I am glad to find your senior yet in the enjoyment of so much freshness and vigor. Knowing his general accuracy and his desire to be "true to the line and the plummet" in names as well as things, I venture upon one or two corrections, which I am sure he will receive in the kindness of personal friendship.

First: the late Judge Glenn, to whom he justly ascribes so much liberality and public spirit in behalf of the farming interest. He was not the successor of the late Judge Gabriel Duvall, who was on the Supreme Court bench, but of his own father, the late Elias Glenn, Judge of the United States Circuit Court for the District of Maryland; and it was his laudable ambition to fill the place formerly occupied by his father which induced him to relinquish a very large and lucrative practice for a seat upon the bench, with a salary very inferior to the annual income of his practice. Nor was Judge Glenn the immediate successor of his father,—the late Judge Upton S. Heath having been appointed by, I think, President Polk as the successor of Judge Elias Glenn. Judge John Glenn was appointed by President Fillmore.

Second: it was the late Thomas Stabler, of Montgomery county, and not Mr. Caleb Stabler, who received one of the prizes offered by your senior for the best essay on "the renovation of worn-out land." Mr. Caleb Stabler yet lives, and may be long live in the enjoyment of the results and evidences of his own distinguished success

in "renovating worn-out land." For no man ever had a harder or more unpromising beginning, or ever was crowned with a richer reward than he now enjoys in witnessing the triumphs of his sons and son-in-law on the same land from which his predecessor fled in poverty,—leaving his broad acres, if possible more reduced than they, by injudicious cultivation, had brought down their owner.

While Mr. Caleb Stabler, from his practical success, intelligence and public spirit, is worthy to occupy the highest niche in your columns, he, I am sure, would not be willing to rob his deceased and elder brother of the credit justly his for having produced an essay on the renovation of worn-out land—worthy in the estimation of such men as the late Judge Chambers, Charles B. Calvert and others, of the liberal prize offered by you upon that important subject.

I am glad also to find that you give to the late Dr. Wm. Brewer, of Poolesville District, father of the late county senator and grandfather of the editor of the *Montgomery Advocate*, which is a lively advocate of the plough as well as the party, the place justly his due as the pioneer in agricultural discussions and associations.

Please excuse me if I have occupied too much space in bringing to your mind for correction the only two errors I am able to discover in your well-written and most interesting article.

Yours truly, A. B. DAVIS.

Greenwood, Md., Aug. 8, 1878.

[We thank our correspondent for pointing out the errors in our report of the history of the Old Maryland State Agricultural Society. That in relation to Judge Glenn being the successor of Judge Duvall was due to a lapse of memory; the other, as to the author of one of the essays alluded to, was an inexcusable error, for which we cannot account, as we had the volume at hand in which the essay was published.—*Ed. A. F.*]

### Old Essays on Renovating Poor Lands.

Messrs. Editors *American Farmer*:

I see in August No. of your valuable farm journal, an historical sketch of the old Agricultural Society of Maryland and in which you intimate a more than half consent to republish the leading and prominent literature of that Society's flourishing existence. Allow me as an almost lifetime reader and a digester of its noble and healthy progress and development to wish you God-speed in this undertaking. Those days of its origin and progress were, I imagine, the halcyon days of its existence, and they were scientific, erudite and scholastic in the highest degree, and of all the essays, prize or otherwise of that epoch of its existence, that were up to the full measure and capacity of farming, was that of Commodore Thos. A. C. Jones, of Fairfax Co., Va., and which was a prize essay at the time, and richly merited and deserved the premium that it got.

I have written some twelve months past, desiring a republication of this most estimable compendium of improvement of worn-out land,



to which I received no response whatsoever. Now I most earnestly wish, since I see that you are awakened and so not wholly dead to sound version of the past, to see its early production. I kept the No. containing the copy for years; was accustomed to review it, but owing to the dire circumstances entailed by civil war, it was lost sight of and lost. I have wished for its reproduction ever since in every issue as our polar star and guide. It was, in fact, though by a retired seaman, the great and sure textbook of our profession. Go back according to memory, from '50 to '57 and you will find it strong, sensible and reliable, as the day it welled up from his true, liberal and strong agricultural soul.

GEO. HAYWARD.

Worcester Co., Md., Aug. 7, 1878.

### Means and Ends.

*Messrs. Editors American Farmer:*

Everything has had a beginning, and sometimes that beginning was small. It rarely occurs that perfection is attained in the introduction of things. An idea is started and a theory is formed which becomes advanced, utilized and perfected.

As with other things so with farming. One to look back to the early accounts of farming, the implements, the theories and practices, and compare them with the present advanced ideas, we would sympathize with the ancients and congratulate the moderns on their success. There have always been among men, from the days of Adam to the farmers of the present day, those who tried to perfect farming and bring the earth up to its full capacity of production. One man tries to perfect the horse for general utility, another endeavors to enlarge the usefulness and value of the ox. Thus gradually we arrive to that extent of perfection we read of in papers and magazines.

To go to first principles and prime necessities, you fall back on the farmer. The farmer grows the wheat, corn and cattle; through these, man has his being, movements and felicities. Thus while he lives himself, he keeps others in motion in their respective lines of trade, traffic and the various accessions to utility and wealth. After the farmer, comes the miller, who converts the grain into flour and meal, which are the substances of bread. I might mention the various trades and arts, and their bearings on the well-being and conveniences of society. I am of the opinion that all the people of the world are or might be useful and necessary in the plan and structure of peoples and nations. Nations are necessary to one another, and the inconveniences of access to trade are obviated by railways, sail and steam navigation. To carry out these things to perfection, art and cultivation are primary agencies; the greater the population, the greater the need of all co-operating and working together for the good of the whole. The world needs consumers as well as producers. The more they do for themselves the more they add to the grand total.

Now we are all indebted to the Great Being for our success, our lives and our property. He gives us the various seasons, sends the former

and the latter rains. He is constantly mindful of us. Sometimes we become depressed and sick at heart almost to despondency. Until a better state of things is brought about, we should bear up under all providential or accidental state of events and believe "whatever is, is right." With equanimity and trust in Providence, all things will work together for our good.

The farmer, in the long run, fares as well as the rest of mankind—his success is not so variable; he recovers as soon from reverses and is not so much subjected to the vicissitudes of trade. With care and perseverance he ultimately solves the problem of success. He sees that where others lose, he has his "terra firma"—calls into requisition its fertility of resources and the virtue of economy. He eschews speculation, and travels in the beaten paths of success. He is aware of the folly of waste, and to prosper without frugality would be to reap without sowing in effect. In everything there are certain means and ways to attain the necessary ends. Theory and practice should go hand in hand; if you have a good theory practice it. Good ground must be well worked, and good seed must be sowed. By incessant cultivation, there will be need of extra fertilization; apply the proper ingredients singly or in combination. The world is in constant motion—the seasons come and go—some are good, some adverse. Do what you can, what good sense dictates, and trust to Providence for the rest. All experience teaches that those who are guided by prudence are usually prosperous. So, "take up arms against a sea of troubles, and by opposing end them." A man should be his own best friend; my best friends are among the farmers.

RUSTIC.

P. S.—The weather was pretty hot when the above was written. The news of the pacific turn of affairs in Europe reached this country. The dream of high prices has passed away. Rumors of fine crops harvested were simultaneous. We can, therefore, fall back on first principles—industry, perseverance and economy.

West Virginia, 1878.

N.

[There is seldom found in the same space more sound sense and philosophy than is contained in the brief papers which from time to time are furnished to the *Farmer* from our respected correspondent.—Ed. A. F.]

### Increasing Fertility.

A well-known English agricultural writer, more than a decade ago, wrote as follows: "Fertility has been increased by the operation of new processes and of new implements, by the importation and manufacture of new manures, by the cultivation of new plants, and by the maintenance of a large stock of improved animals," on which the *Prairie Farmer* comments as follows: It is the key-note to successful agriculture everywhere. The farmer who buys the best implements for working the soil, always having in view simplicity of construction and consequent economy in cost; who increases the fertility of his soil by green fallows; who makes grass the basis for another crop; who breeds his animals up, and gives them the sustaining power

toward improvement by liberal feeding from birth upwards; who conducts his operations from a business standpoint; this one is the successful husbandman. Work does not drive him; he drives his work. It is nonsense to talk about a soil growing poor in the course of five or ten years' cropping, unless the individual has shamefully mismanaged it. In fact, so far as the virgin soils of the West and South are concerned, deterioration is due more to mismanagement, or to cropping to special crops year after year, than to anything else. The man who plows a clay soil when wet so alters its mechanical structure that sometimes it will take years to bring it back to its normal state. Often, in fact, it can never be done. Sandy lands do not bake or run together, and from this and no other reason is it that these soils are so happily adapted to recuperation. Yet these soils are far less rich than the more tenacious clays or strong loams. These latter, if plowed when in a friable condition, will remain intact, or nearly so, mechanically.

It is simply nonsense to talk about the degeneration of the soil. The earth is a great reservoir of fertility. China, the garden of the earth, has been cultivated for thousands of years. The cereal yield of England, through improved cultivation, has been advanced within the last forty years two hundred fold. In the East, through improved systems of cultivation, careful rotation and the application of manure, a great advance has been made in the average yield of crops. The same may be said of the South within the last five years. So also in the West, many farmers may be found who have kept the fertility of their farms intact from decade to decade. Yet, as a rule, the lands of the West are constantly decreasing in their average yield. This is natural enough to all new countries. The processes are crude, and the money crops few. It is, however, a wise policy, as soon as possible, to so diversify the crops that a proper rotation may be secured. This, with plenty of grass and live stock to eat it, will not only keep up the fertility of the soil, but make it better year by year, rather than worse.

### The Hog—Which is the Best Breed for the Farmer?

*Editors American Farmer:*

There has been recently issued from the State Department of Agriculture of Virginia, by Dr. Thomas Pollard, Commissioner, a publication, "The Hog—varieties to raise, general management and diseases," which contains statistics, relative value of food for hogs, curing bacon and diseases of hogs; also an interesting and admirable summary of, and comments on, replies to twenty questions sent out by the commissioner in circular No. 9. These answers are from the most prominent farmers and hog-breeders of Virginia. "The information thus procured is valuable, coming from practical and intelligent hog-breeders." The first question of the circular, similar to the one selected for the subject of this article, is as follows: "What breeds and crops do you prefer, and what breeds are you keeping and have kept, with your opinion of their merits and demerits?"

The writer would state that he has had on his farm during the past fifteen years the following breeds: Chester White, Essex, Berkshire, Small China or Neapolitan, Jersey Red and Poland-China, with crosses of the pure breeds and natives. Before answering this question it may not be improper to call the attention of your readers to the well-known and established fact that care in breeding and supplying all the essential conditions of health and growth are as necessary for success in pork-raising as proper cultivation of the soil and nourishment of farm crops is for the profit in farming; and that from neglect the best breeds will rapidly degenerate, like the best seeds of our grain crops with slovenly and imperfect culture and deficient food supply. Nature will accommodate the animal to circumstances in which it is placed, and the most perfect form of the improved breeds of hogs will soon degenerate into the native "land pike" when compelled to hunt their own subsistence in the woods. At the same time we observe so marked a difference in the energy, industry and ability to subsist themselves in part by foraging and grazing, growth in small and large inclosures, and other qualities as to maturity, habits of breeding, kind parents and good nurses for their young, and other circumstances which will readily occur to the reader, that we must carefully consider our natural and artificial food supply, and the peculiar advantages or otherwise all possess, before we decide which is the best breed for us.

In general, the farmers of Virginia and elsewhere in the South and middle States cannot afford to raise hogs exclusively on corn: hence, desire and expect to grow their hogs as cheaply as possible, feeding grain in winter, vegetable crops in summer, and corn for fattening in the fall. It is essential, therefore, that the breed kept should have enough activity to glean our fields. In many of the pure breeds we find a great want of energy; they are indolent and require much more attention to feeding than grades and natives.

In the summary of the "information collected from circulars" by the commissioner we find "33 per cent. preferred the Berkshire to breed from, 2 per cent. the Essex, 1 per cent. native stock crossed with various pure breeds, 1 per cent. Poland-China crossed on Chester, 16 per cent. Berkshire on Essex, 10 per cent. Berkshire on common sows, 10 per cent. Berkshire on Chester, the same per cent. Berkshire on Poland-China, 10 per cent. Chester on Essex, 1 per cent. Poland-China on common sows, 1 Jersey Red on Chester, 79 per cent. prefer Berkshire and its crosses, and 10 per cent. Essex on Chester, while others like various crosses."

It will be perceived by the above that in the vote taken the Berkshire breed has a very large majority,—79 against 10 of any other. It is proper to state, however, in reference to the Jersey Red and Poland-China that they are not yet widely disseminated in our State, like the *Berkshires*: hence we must take their decided preference with some reservation. That in form the Berkshire is the most perfect hog we have, of a good color, one of the best fixed in type, and impressing its good qualities on native sows, the very best grade for the farmers' pork hogs,



cannot, we think, be denied. While it is not proper for any of us to draw general conclusions from isolated facts in our own experience, yet when these facts accumulate in the experience of a neighborhood they deserve some consideration. For many years past Berkshires have been bred and sold in this neighborhood as the best to cross on native sows. About eight years since the Jersey Red were introduced by Jersey farmers and have been greatly preferred to the Berkshire. Five years ago the Poland-China were introduced into this section; and at a sale six months since, to show the neighborhood estimation of this breed, seven pure-blood Berkshire sows, which had been kept by the owner for selling pigs to farmers, brought an average of \$8 each. One Poland-China sow 15 months old sold for \$25, and five of her sow-shoots in pig \$11 to \$13 each.

While none question the value of the Berkshire in improving the native breeds, the grades having all the industry of the natives, with the fattening qualities of the pure-blood, yet the opinion is prevalent here that *pure-bred Berkshires* do not grow off like Jersey Red, grades or Poland-China; are wild in nature and often spiteful, vicious mothers.

We do not find the Berkshire bears confinement as pen or slop hogs, like the Jersey Red or Poland-China, and my impression is that the farmer who raises fifty or more hogs every year will find it much to his interest to have more than one breed.

It is convenient to have some large hogs for lard and to feed the farm hands who prefer fat bacon; and it will be found, I think, there are better breeds for slop and pen hogs than either the pure Berkshires or their grades and crosses. There are comparatively few breeds of hogs which grow and thrive as well in confinement as in open range and pasture fields, and none of the improved breeds so industrious as our native breeds. Habit on their part has become second nature, and when the farmer buys a boar of an improved breed and permits him to run at large with his sows, he is very apt to be disappointed, expecting too much from the breed alone without thinking for a moment of the circumstances under which this improvement of the particular breed has been made and kept up.

There are many reasons to believe that it is as easy to *grade up* and improve our native breeds of hogs as it is to improve our wheat or other seeds; and I have seen on more than one occasion pigs of the native breed under high feeding from piggery have all the marks, as to fine bone, the form, short head, broad back, moderately short legs, of the thoroughbred, and equal in weight for their age to the best of the improved hogs. Two of these pigs fed by a neighbor weighed nearly nine hundred pounds at 18 months old, and were often taken for thoroughbred hogs. This same man, a careful observer, received a present from a friend of a Berkshire boar pig and Poland-China sow of the same age. They were fed and raised together. At eight months old he estimated the sow to weigh nearly twice as much as the boar; the latter had not been put to service.

We have seen the Jersey Reds raised from piggery in close pens always fat and thrifty and grow rapidly. A few years since the writer, without so intending, made the following experiment: Two natives, 8 months old, which had been stunted as pigs, were put in a floored pen by the side of two cross-bred Jersey Red and Chester White, well raised, of about the same age. They were fed as slop hogs from the first week in March until the first week in November. The Jersey Chester made 940 lbs. dressed pork, and the natives 562 lbs. Sundry times the difference in form, appearance and weight of pigs taken from the same farrow, one raised as house and slop hogs, and the other allowed to run at large with the pasture and woods hogs, has been observed, so that I am satisfied that care, feeding and management has, like cultivation and nourishment of farm crops, as before remarked, a great deal to do with the profitable *growing of our hogs from any breed*. For bacon pork some of our farmers think it best to feed enough *only* to keep the hogs in good growing order all the time, developing *first the muscular structure*, then pile on the fat quickly with corn and meal in the fall; for pork, on the contrary, or lard hogs, keep fat all the time even with cooked and oily feed from piggery until death. Then just here comes in the question under discussion, and while the grade Berkshires make the best bacon pork, for lard and pork to be used as pickled pork, such larger breeds as the Poland-China and Jersey Red, which grow well and endure confinement in small pens and enclosures *better than any other*, will be found most profitable. Where the color is not objectionable I should judge from the descriptions in the journals that the small Yorkshires would also be very profitable hogs to raise and feed in pens and small enclosures.

My impression is decided that the best breed for the average farmer is the grade hog, native sows admitted, when occasion requires, to the pure-bred Berkshire, Poland-China, Jersey Red or Essex boar, keeping the male hog always separate in a small enclosure from the herd. In my experience one who breeds *pure Essex* will soon *breed out* of pigs. The sows keep too fat to breed, and the same objection I found to apply to the small Neapolitan or China breed (black short-legged little hogs, with very little hair, the originators of the Essex breed itself.)

In the replies to the commissioner we find the majority deciding as follows: One service of the boar sufficient. Sow pigs should not be permitted to take the male before they are 8 or 9 months old and *well-grown*. Number of pigs allowed to the sow depends on her size and age—generally eight or nine. While most of them allowed the sows to wean their pigs, others thought they should be removed when three months old. Not many had tried cooking food; "variety of food as far as practicable conceded to be best." "Two litters per annum preferred." "Grades preferred by a decided majority over pure-breeds." 30 per cent. preferred pigs to come in March, 17 per cent. in April. Age for castration: 33 per cent. said eight weeks.

Your correspondent says one month old for boars and two months for sows. In concluding

this hasty article the writer is disposed to adopt the opinion expressed by one of the correspondents of the commissioner in answer to the question as to the best breed. Mr. Sharpe Carter says: "In my forty-seven years experience I have tried almost every known breed in this country, but have no decided preference for any particular one,—believing one better for given circumstances and localities, and another for different ones. I prefer the smaller breeds, neither black nor white, but spotted, of good form and constitution."

Unless the type of any breed is well fixed every one is aware of the tendency to breed back, and not true to its kind; in the crosses and made-up breeds this is particularly observable. There is no breed which impresses itself more decidedly on native breeds than the Berkshire; but while the Poland-China is a made-up breed, in which the Berkshire blood entered, we find in three years experience that as far as one can judge from the pigs the type of the breed is equally *as well fixed* as the Berkshire, and the cross on the scrub native sows makes excellent thrifty grade pigs for pork; marked in color and form like the sire. The same is true of the Jersey Red. Finally it may be said that while there is much in the breed of hogs as regards the *economy of pork-growing*, there is much also in the farmer who feeds, grows and fattens them. G. W. B.

*Suffolk, Nansmond Co., Va., Aug. 21, 1878.*

### Salting Stock.

The editor of the *Prairie Farmer* says:

One of the most important things to attend to in the care of farm stock of every kind is, that they have access at all times to salt. In this connection we would again call attention to the bad practice in vogue with many otherwise good farmers, in that they salt irregularly, and at such times with too liberal a hand. Thus animals will gorge themselves, and this often results in severe purging. Again, when salt is thrown about on the ground to be licked up, the stronger animals get more than they should and the weaker ones little or none. Besides this, injury to weak animals is often the result of this struggle. The proper way to salt stock is to have the salt placed under cover, where they may get it every day if they wish. In this way they take just what they want and no more, and, while eating what is necessary for them, they never take enough to do them injury. Thus cattle will seldom take more than an ordinary tablespoonful per day, and this is about what they require in summer as an aid to proper digestion.

In case of lameness due to an injury to the knee joint or some of the sinews, it is well to apply a poultice to the damaged part to relieve the inflammation. The leg below the elbow should be well rubbed with a liniment of sweet oil and ammonia, and the knee gradually straightened meanwhile. After the rubbing, give the horse a little exercise. Continue this treatment twice a day until the stiffness of the knee gradually disappears.

### The Dairy.

#### Profit From Full Feeding.

If there is anything in regard to dairying that requires frequent repetition and strong exhortation, it is the necessity of generous feeding. We know how prone the dairyman is to forget that milk first goes in at the mouth. He seems to regard the cow as a creative animal, having the power to produce milk without regard to quantity or quality of food. He is quite apt to regard a shrinkage in milk production as merely temporary—like the loss of a dollar, which may be replaced by another earned. But when a cow gradually loses in her milk secretions in July and August, it is generally a permanent loss for the season. Good feeding afterwards will seldom if ever recover it. We have often given illustrations of this, and tried to impress upon dairymen the necessity of giving the cow abundant food to stimulate her milk production, that she may continue an even yield through a long season. The question as to whether such extra feeding will pay dairymen, was forcibly illustrated by C. W. HERR, in a paper read at the American Dairymen's Association, at Cleveland, Ohio, last winter. Mr. HERR has been interested in running a large creamery at Wellington, Ohio, for several years, and has kept the statistics of the production of different herds whose milk has been delivered at his factory. He says:

"The first dairy, that of Messrs. Nooney & Phelon, was messed during the latter part of the season, being fed, all told, about \$125 worth of bran. The other, Mr. —'s, had a good, fair range of pasture, but were given no other feed. Both dairies had, in the latter part of the season, the same range of pasture that they had in the early part, with about the same amount of meadow in addition. Neither milked any more cows in the late months than in the early ones.

N OONEY & PHELOX.		MR. —'S.		
	Pounds.		Pounds.	
April.....	12,638		13,312	
May.....	17,564		30,599	
June.....	19,807		22,369	
July.....	20,344		19,310	
		Value.	Value.	
August.....	15,794	\$165.93	14,539	\$132.65
September....	15,672	194.95	13,099	163.73
October.....	15,958	223.41	9,028	126.38
November.....	13,553	216.52	4,953	79.24

Taking the June milk furnished by both as the basis of our calculation, by careful computation you readily ascertain that, by Mr. —'s dairy not doing so well proportionally in the last four months as it did in June, he has lost as follows: August, \$34.64; September, \$56.09; October, \$125.91; November, \$165.28—total \$381.92. Deducting the \$125 paid by Nooney & Phelon for feed, you have \$256.92 as the amount lost by Mr. — by not messing his cows. However, I am informed by Messrs. Nooney & Phelon that their December milk netted them enough to fully pay their feed bill; while Mr. —'s cows were nearly dry before the end of November. The cows of the latter were worth in January \$5 a head less than they would have been had they been fed as well as the other dairy. Taking everything into account, then, is it not fair to say that Mr. — loses fully \$393 by not feeding."

This is a showing that should be heeded. Mr. HERR mentions several other cases. In fact, he appears to have done what all our factory owners should require to be done—that is, keep the statistics of their patrons' production per cow.

We will give another case showing the benefit of good feeding. Mr. OLIVER BRONSON, of Stockton, Chautauqua Co., N. Y., lately reported to the Western New York Dairymen's Association the yield of his herd of twenty cows as ranging from 287 to 305 pounds of butter per head, per year. Mr. B. said:

"I feed the milk back to my cows, after mixing it with sufficient bran and meal to induce them to eat it up clean. My cows are all natives, and I allow them to go dry two months in the year. I am confident that the extra feed is well paid for—believe it would pay in all good dairy herds to feed in the summer. If it only paid in the improved condition of the cows, they would sell for enough more to pay well for the investment. The skimmed milk fed to my cows has never injured the quality of my butter. My pasture is good."

Mr. B. selects good cows; but that fact would not carry him up to this large yield of butter without the best feeding. This case shows that the refuse milk may be fed back to the cows without injuring the market price of the butter. This practice is forbidden in many factories, for it has been found that, in the usual method of feeding, it injures the milk; but we have found that it may be fed back to the cows, if fed regularly when it first sours. His large yield from high feeding may be judged, when it is stated that 150 lbs. of butter per cow is above the average yield of all the cows in the State of New York.—*National Live Stock Journal*.

### The Secret of Good Butter.

Every one knows how superior is the reputation of Philadelphia butter, and many have been the attempts to account for it. Perhaps the most popular notion was that it was due to the prevalence of the "sweet vernal grass" in our pastures and hay fields—the grass which often gives so peculiar a fragrance to meadow hay. But it needed very little reasoning to demolish such a theory as this. This grass is one of the poorest for hay or pasture purposes, and scarcely exists except on cold clay lands, in partially shady places near groves or low woods. Yet while this grass is the exception, indeed the very rare exception, in low pastures, or in the hay fed to our cows, good butter is the liberal rule in all our markets.

It has long been the opinion of our best agricultural generalizers of facts that we owe much more of the sweetness of our butter to the abundance of springs and spring-houses in our State, than to anything peculiar which grows in our pastures. Milk has a particular affinity for any odors in the atmosphere, and water has some; hence whatever impurities may get into the atmosphere of the spring-house is drawn out by running water, and the very best security is provided against their being absorbed by the cream.

We notice this now through observing an inquiry whether the light of a kerosene lamp in

a dairy could possibly affect the quality of the butter; we should answer most decidedly in the affirmative. All odors of every description should be carefully avoided, if the very best brand is desired.

There is one little incident in this reputation of Philadelphia butter which must never be forgotten. The followers of Penn made up a large class of our original farming population. With these people cleanliness was especially one of the virtues. It was not a mere sentiment that it was "next to godliness," but an every-day testimony in all they did. Aided in these cleanly practices by their numerous springs and spring-houses, we have little doubt we owe to them as much as to any other circumstances the eminent character which Philadelphia butter enjoys; and we believe that if other quarters would give especial attention to these little niceties, as good butter might be had in any part of the Union as here.

Nevertheless we are obliged to add that there is a great deal of poor butter sold in Philadelphia made in the Eastern counties, arising we think from those having a small dairy churning only half as often as they should.—*Germantown Telegraph*.

### Poultry Yard.

#### Late-Hatched Chickens.

By G. O. Brown, Montvue Poultry Yards, Brooklandville, Maryland.

About this time of year we are generally surprised by seeing a hen or two, which we have missed for some time, come clucking up, accompanied by a brood of chirping youngsters. They have stolen their nests, and this addition to our stock is unexpected and often not very welcome,—as it is considered "too late" or unseasonable. Consequently these late-hatched broods are neglected and left to scratch for themselves. This is a great mistake; for, with but a trifle extra attention bestowed upon them, they will grow very rapidly, so much so that those who have been in the habit of paying no regard to their prosperity would be considerably astonished to find by Christmas they have spring (?) chickens, equally as palatable as in real spring-time. Another thing in favor of the late broods is that the pullets make excellent summer egg-producers, furnishing us with eggs when the adult fowls are moulting, and eggs are scarce and command remunerative prices. I have had broods that were hatched on November first that proved to be excellent fowls the following summer. Those birds which feather quickly, such as Leghorns, Hamburgs, Houdans, Dominiques, &c., thrive the best as late-hatched birds. Yet any of the Asiatic breeds will thrive, if hatched in this climate, up to October first. The Cochins feather quicker than the Brahmas, and the white feather more rapidly than the dark Brahmas. Another favorable consideration for the late-hatched pullets is they will become broody, in many instances, about August, which will be just the time to set your Bantam eggs. Very much may be done towards securing a rapid growth by regular feeding of a varied diet, and fine ground raw bone should be used at least three times

each week in the mixed feed; this will be only necessary where extraordinary rapid growth is desirable. If you are troubled by the older chicks while feeding, (after your late chicks are four or five weeks old,) take some poles about three inches through, cut the first four three feet long, the next four two to three inches shorter, and place them on a pile,—log cabin style,—shortening each tier of poles, until you get the pen about a foot high; then put a square board, large enough to cover the space left, on which place a good-sized stone. If the poles are placed right this will enable the "laters" to go in and get the food you scatter there for them, while larger ones cannot squeeze in. These pens will be found convenient during the entire breeding season.

#### Answers to Correspondents.

"I want to start with some breed that are good layers; which would you recommend where eggs alone are the desired object? Please answer through the *Farmer*."—Mrs. M. J. T., *St. Mary's County*.

Ans.—Doubtless the Brown Leghorns would better answer the purpose than any others. You could keep in same yard with them, for sitters, Cochins or Brahma hens. As the Leghorns lay a nice white egg, and the others named a brown or buff-colored egg, the difference could be detected at a glance.

"Can Bantams and Brahmas or Cochins be kept together without crossing?"—AMATEUR, *Fürfax C. H., Va.*

Ans.—We have kept Bantams with the Asiatics and never had any cross; also with Houdans. There is very little danger of a cross if the Bantams are standard birds; that is, do not go over weight. But there are some Bantams that are Bantams by name only, being nearly as large as Hamburgs; such will mix with even the large breeds.

#### Brine for Bathing the Feet of Horses.

A correspondent, writing to the *Practical Farmer*, in relation to the use of salt and lime for bathing the feet of horses, says: "I have tried strong brine on foundered or hoof-bound horses, and with good results. I made a solution of salt and water and applied it 3 times a day, by washing the legs and pouring upon the bottom of the feet, and holding them up a few minutes to let it strike in. I saw the wonderful effects in a few days. I account for it in this way: Salt will extract moisture from the atmosphere which keeps the feet moist. Salt operates nearly like melted grease upon the feet. The hoof becomes tough, yet pliable. Like a chunk of wood saturated with salt or brine, it is tough yet moist. Thus it is with a horse's foot. Here let me add, that the practice of rasping a cracked hoof to toughen it is folly. Apply brine and you will effect a cure. A horse that is driven upon a hard road is liable to get stiffed. I have seen valuable horses driven upon our own plank roads a few days get quite lame. I reasoned to myself as to the cause and adopted the use of brine as a remedy, which proved effectual."

## Horticulture.

### A Plea for the Small Fruits.

Mr. Charles A. Green, in a paper read before the Western New York Horticultural Society, had the following to say on behalf of these products:

The small fruits possess the following advantages over the large fruits: They bear much sooner after planting; the plants are more easily propagated, and therefore less expensive; as a rule they may be relied upon to bear every season, while the large fruits have their off years; they are not so seriously affected by insects and disease; they occupy less land, and submit gracefully to being tucked beneath the larger, like the trundle bed of our childhood.

It is to be regretted that we do not have local exhibitions of the small fruits. The people are not well informed of the better varieties, are incredulous of reports brought to their notice, and can only be convinced that strawberries are grown nearly as large as peaches, and that raspberries, grapes, currants and gooseberries have been improved in value to an equal extent, by viewing them on exhibition. Our annual fairs are of no value, except in the display of grapes. Why not have a strawberry show and other exhibitions of small fruits? Were it possible that a complete collection of small fruits could be placed on exhibition at once, in competition with the large fruits, I am confident that the former would not be overshadowed, in points of beauty and excellence.

### Profits for Market.

Is the growing of small fruits for market profitable, we are asked. The production of an inferior quality of fruit, of any kind, is not profitable. Therefore, if the inquirer has no tastes that incline him to small-fruit culture, and no ambition that will urge him to the production of fine specimens, we would not reply in the affirmative. But if he loves to urge the development of his plants, if he loves to see them thrifty and luxuriant, if he finds beauty in the leaves, flowers, fruits, and clinging vines, if he hates weeds and has fair soil and market, we reply yes, go ahead, they will pay you nobly—they are the most generous of things earthly. But start slowly if you have had little experience, or you will get wrecked on unprofitable varieties. If your capital is all in brains and sinews, remember that \$10 worth of plants may be made to stock a small fruit farm, if you have patience to wait for the increase. Do not feel compelled to hug the cities; for those markets are often the most uncertain. The country and the villages are the most reliable markets. It is possible for three hundred bushels of strawberries to be grown on one acre. Two hundred bushels is not an extraordinary yield, yet one hundred bushels per acre might be over the average, for there is much poor culture. One hundred bushels of raspberries is a satisfactory yield, but often above the average. Currants, gooseberries and grapes yield generously, with good culture and congenial soil, and are highly profitable, if the best varieties are selected. The



blackberry is perhaps the most profitable of all, in sections of country where it does not winter-kill.

Of course, the grower of small fruits may be overtaken by drouth, hard times, the currant worm, and other drawbacks. It won't be all sunshine and fair sailing by any means. Yet, I consider it safe to say that from eight to ten acres favorably located, judiciously planted to the best varieties of all the hardy species, and properly treated, will yield more average net profit than one hundred acres at ordinary farming. Western competition, and cut-throat through freights, are the millstones between which our farmers are being ground; and the result is profits too small to be discovered with the naked eye. Thus farmers are more and more entangled in debt, fences are going to decay, and farm buildings are unpainted and dilapidated. Our farmers are producing that which costs them more than their competitors ask for the same produce, in the open market; yet their competitors, the Western States, make fair profits. I am aware that all industries are more or less depressed by the hard times, but our farmers' interests are permanently crippled, unless legislative relief, if indeed such relief be possible, is obtained on the question of freights. Under such circumstances the small fruits, to those who love them, offer peculiar inducements; for this interest cannot be affected by the competition of the great West. The wide prairies might be knee-deep with strawberries, and the *Sierra Nevada* slopes roll down avalanches of grapes, and yet our markets continue hungry, and our pockets rotund with jingling coin.

Those who fear a permanent over-supply of fruits do not realize that few sections of country are so favored as ours; nor that new outlets are opening each season for our crops; nor that we, as a nation, are forming the habit of consuming fruit largely. Our pork-eating propensities have extended our cemeteries and medical institutions. As we become weaned of the pork barrel, we will eat more and more fresh fruit, and then we shall hear less of stomach bitters and railway pills. The treatment of diseases with ripe fruit is not confined to France and her grape cures.

#### Small Fruits for Country Homes.

Complaints are made that our farmers isolate their families from many enjoyments of city or village life, and neglect to provide those luxuries of the garden that lighten the heart and invigorate the stomach; a choice collection of which delicacies one might well travel some distance to partake, at the home of a friend, as some writer has intimated. Such complaints are well founded, and farmers are to be censured, if, as some imagine, our farmers are independent, and burdened with leisure hours. But this happy condition being simply a dream of the poet, or a burlesque on struggles for existence, let us not berate the patient husbandman; for no class is so badgered, harassed and driven, nor so poorly paid for their toil. The care of farm fences, buildings and live stock, long journeys to market over horrible roads, relentless storms, the fickle seasons, and countless never-ending drudgeries, assail the farmer at every turn; and lo and behold it is discovered that his fruit-garden, his

flowers, his lawns, do not compare favorably with those of his city brothers. The homes of many of our farmers are indeed barren of the choice varieties and species of small fruits; but the farmer's heart beats kindly towards those dependent on his efforts, and as he becomes more familiar with the better varieties, and appreciates their value for home use, and learns how easy they may be grown, he will produce them. In fact, our well-to-do farmers are, of late, introducing these comforts quite liberally.

Small fruits are a great attraction to any place, but no country home is complete without them in abundance, from June to January. They are not only toothsome and healthful, but are possessed of great beauty. Downing says "that fine fruit is the most perfect union of the useful and beautiful that the earth knows." As much pleasure may be obtained by wandering through a garden of strawberries, raspberries, blackberries, currants, gooseberries and grapes, under good culture and treatment, when in bloom or fruit, as from many flower-gardens. We are apt to overlook the beauty of these useful plants, and bestow our admiration indiscriminately on those that have their being for beauty alone. If we desire we may train most of the small fruits in forms of beauty, greatly enhanced when bearing their luscious burdens. For instance, Black-Cap raspberry may be made to cover a trellis, or may be trained low, and as round-headed as a hay-cock, or transformed into an uniform and trusty hedge-row. Should we first see the currant in fruit, when strolling for wild flowers, we should feel that we had discovered berries of great beauty. Like blades of grass, apple blossoms and sunsets, currants are too familiar to receive general admiration.

Few vines are more ornamental for home grounds than the grape; and when the "bloom-dusted" clusters swell and ripen, in the autumn sun, we may rest with content beneath their shadows. Hundreds of dollars, expended in architectural display, may not add so much attraction to a country home as will the old grape vine, trailing from a rustic arbor about the gables. How well we remember the vines that twined their tendrils about the homes of our childhood. Familiar scenes and former acquaintances may have been forgotten, but the old vines cling to our memory in all their beauty and fruitfulness. Let us plant the small fruits about our homes. They will promote health and contentment, and do much to brighten life's toilsome journey.

#### Picking and Ripening Pears.

Mr. J. W. Pierce, in a paper read before the Massachusetts Horticultural Society, makes the following suggestions:

Summer and early Fall pears should be picked just before they begin to turn and when they are nearly grown; should be handled with great care, to avoid bruising, and should be placed in barrels or boxes in a room or cellar, where the temperature may be kept at about 70 degrees, and a moderate degree of moisture maintained. A very dry air is not so good, as it absorbs the moisture and aroma from the fruit, injures its flavor and causes it to wilt and

shriveled up. After being kept in such a room a few days they will begin to turn, and some of them will mellow; then they should be sold or used before they soften. The boxes, barrels, or whatever they may be placed in, should be covered with papers, to exclude the light and prevent the escape of the aroma.

Care should also be exercised to avoid placing them so deep in barrels or heaps as to allow of the generation of much internal heat, which might carry the fermentation too high and destroy the fruit. When one has the facilities for doing so he may improve the color, and possibly the flavor, by spreading them on shelves between old newspapers. This ripening between papers on shelves, in a room where an even temperature and the right degree of moisture can be maintained, seems to give the most satisfactory results of any method with which I am acquainted. The manner in which early pears thus treated will color is truly wonderful.

It is often desirable to lengthen the season of ripening of some of our early pears. Especially is this the case where the Bartlett—which seems to be the standard summer pear for marketing purposes—is the main crop. This may be readily done by making two or more pickings from each tree, with several weeks between the first and the last picking. The largest and ripest should be picked first—as soon as the windfalls will ripen and be good—and the smaller and greener ones should be left to receive the additional sap which the earlier ones would have appropriated. Sometimes one side of a tree will be much earlier than the other, in which case the earliest side should be picked first.

This early picking should be ripened off at once by the process already described,—only observing that the greener the fruit the higher temperature it will require, and a more humid atmosphere will be needed to prevent their shrivelling. Having ripened and disposed of this early crop another picking should be made and served in a similar way, leaving the greenest on the trees as long as they will keep green. Mulching, and, where practicable, watering, will help to prolong their season by keeping up the vigor of the trees. Most summer and fall pears may be kept best by leaving them on the trees as long as they will hang and keep green. I have tried keeping them on ice; but while it checked their ripening, it induced decay and destroyed the life of the pear, if I may be allowed such an expression. Certainly, keeping pears a long time at a low temperature injures their ripening properties. By making early and late pickings, as described, we may obtain a larger crop from each tree and sell it at better prices, because we can put part of them into market early, before the bulk of the crop is received, and we can keep a part of the crop until quite late and sell when the rush is over,—thereby obtaining better prices. Splendid specimens for exhibition purposes may be obtained by leaving a few of the largest and fairest specimens on the tree, and picking all others early; then, when fully grown, pick and ripen between papers or blankets, as the weather and degree of ripeness they have attained on the tree may require.

A great many people pick their pears too green. Such pears are small, and they will shrivel unless ripened with great care, and they lack the body and flavor of those which are fully grown. Late fall and winter pears should be left on the trees until hard frosts and windy weather cause them to fall; then they should be carefully picked, sorted and packed in clean barrels and stored where the temperature can be kept as near 40 degrees as possible, until the season of ripening has arrived, when they should be placed between woolen blankets, in a room where an even temperature of as near 70 degrees as possible can be maintained, and they will soon ripen like summer pears.

I believe the cause of the failure of so many people to satisfactorily ripen winter pears, is that the fruit is kept and ripened at so low a temperature that the tendency to saccharine fermentation is destroyed, instead of being favored, and consequently such pears are dry and tasteless.

The *summa summarum* of this whole matter is, if we wish to keep pears and retard their ripening, we must keep them in a still, dry air, at a temperature as near 40 degrees as it is possible. But when it is desirable to ripen them put them in a dark, warm place, with a moderate degree of moisture in the air, and keep them covered to exclude the light and retain the heat and gases which are generated. In warm weather use papers for a covering, and in cold weather use woolen blankets.

#### The Maryland Horticultural Society.

It will be seen that the society will hold its Annual Exhibition on the 17th, 18th, 19th and 20th of the present month, in the fine Armory of the 5th Regiment Maryland National Guard, a building admirably adapted for such purposes, and the only one, indeed, in this city, which is—its lofty ceiling and numerous windows affording the best of ventilation.

The season has been a favorable one for most products seen at these shows, and it is believed as handsome and as full a display will be witnessed this year as has yet been known. The character of the plants grown around Baltimore has steadily risen, and nowhere in the country can finer exhibition specimens be seen. The capacity of our State for growing fine fruits is well established, and our gardeners excel in the excellence, size and beauty of their vegetables.

It is hoped that the liberal prizes offered in all these departments, as well as the public-spirited disposition to make this show occupy the position it ought, will lead all who have fine specimens to send them in, in compliance with the invitation given to the growers throughout Maryland.

Copies of the Prize Lists can be had of the Secretary at the office of the *American Farmer*.



## Floriculture, &c.—September, 1878.

By W. D. BRACKENRIDGE, Florist and Nurseryman,  
Govanstown, Baltimore county, Md.

If the more popular bedding-out plants have been properly attended to, they will now have reached their greatest state of perfection. And where the system of planting has been either that of the ribbon or carpet, the present is a proper time to take notes for future reference, as it sometimes happens that a failure has been made by not having the colors brought together, well contrasted, and such notes will be a guide to you next year. Mistakes of this kind are frequently made, owing to a lack of knowledge regarding the habit of the plant, and the peculiar kind of soil and situation in which it delights; and then as to color of foliage, that often changes much when exposed to the full glare of the sun, from what it was when removed from under glass,—causing the contrast in both flower and foliage to be far from what you desired.

A glaring contrast in colors should, if possible, be avoided, by a gradual passage from scarlet to white, through pink, blue and lilac; by this action, a more agreeable parade of colors is brought forth. We stated last month that constant care should be exercised in the use of the knife and shears, so as to keep the lines of color in the pattern from passing into each other. All decayed leaves and flowers should be removed, while the surface of the beds ought to be stirred up and raked smooth, so that the whole may present a fresh and gay appearance.

Hardy herbaceous plants deserve more attention than is now given them, especially such as are free growers and produce a profusion of showy flowers; and we name such that would repay any little trouble necessary in caring for them, viz: Campanulas, Veronicas, Spiræas, Lobellias—nothing is more gaudy at this season of the year than the deep red-flowered *L. cardinalis*, and the pale blue-flowered *L. syphilitica* is well worthy of being cared for. Achilleas, Phloxes, Delphiniums, Funkias, Dielytras, Aquilegias, and then we have that imposing plant *Tritoma* in two or three varieties, with *Bocconias* and *Rheum Emodi*, producing large and attractive foliage; therefore well adapted for grouping, or as solitary specimens on the lawn.

It appears to us rather strange that so few people take hold of the various kinds of *Yuccas* or Adam's Needle as they are sometimes called, for as decorative plants there are few that can surpass them, even if we take one of the most common *Y. filamentosa*, with its green bayonet formed thready beset leaves, and stately panicles of white bell-shaped flowers, which ought to recommend it to the most fastidious as a suitable subject to grace a garden, either in single specimens or in masses.

We rarely meet with a group of grasses, and yet we feel sure they would give great satisfaction if properly arranged; say for a circular bed, begin with a clump of *Erianthus Ravennæ* in the centre, surrounding this with *Arundo Donax variegata*, then a circle of *Eulalia Japonica variegata*, followed by another ring of *Briza*

*Media*, finishing with an edging of *Stipa pennata*.

We look upon it as a prudent act, to set about—towards the latter end of the month—to lift from the ground and place in pots a number of plants of such articles as you desire to propagate from; during the winter these should be set for a few days in a close shady frame and removed to the greenhouse before frosts overtake them. Many individuals, in place of saving old plants, put in their cuttings now; this is all right, but we think it more safe to have a few old stock plants to fall back upon; and advise the cutting back of all weak branches of these stocks when they are about to be potted.

It is always safe and desirable to have a nap of grass—say from two to three inches long during the winter on the lawn. This in a measure prevents the frosts from drawing the roots to the surface; therefore, the mower should not be passed over it after the end of the month.

We would advise any one who is fond of fragrant flowers, to plant out in a cold frame now at least 50 plants of double blue Violets. We think the *Maria Louisa* variety is about the best. A month later we would plant out as many more as the nature and condition of the case may demand. A rich, friable loam is the best earth in which to plant.

### Greenhouse.

It is a matter of great importance that all glazing and painting, as well as the overhauling and repairing of the plant stages should be done up, and the inner walls whitewashed during the month, so that the house may be ready to receive the half-hardy kinds of plants before they get checked by cold, wet weather; even *Camellias* and *Azaleas* will flower better if taken in early, remembering to give a liberal supply of air during mild weather after housing.

It is also of importance that plants that have been plunged in the open ground during the summer be now examined, as the roots of many may have passed out at the bottom of the pot; these should be removed, and such as need it shifted into larger pots, although we do not approve of shifting large hard-wooded plants in the fall. Plants whose roots have become matted inside of the pots ought not to be exposed to the sun, as that would kill them; hence some shade on the south side of the pots is necessary.

All tuberous or bulbous-rooted plants which have gladdened you with their flowers during the summer, will soon be gradually passing into a state of rest; we mean such plants as *Tideas*, *Nigellas*, *Gesnerias*, *Gloxinias* and *Liliums*. As their tubers begin to ripen, diminish the supply of water by degrees, but not before the roots or corms become somewhat firm, about which time the leaves and stems will begin to decay; then, soon after this, water should be withheld altogether, when the pots with their contents may be stored away in some dry, temperate place to rest until next growing season.

Sow seeds of *Heart's Ease*, *Sweet Alyssum*, *Chinese primrose*, *Cineraria*, *Mimulus* and *Calceolaria*. The surface of earth on which the two last is sown should be made very smooth; as the seeds are very small, therefore should be very

lightly covered. All summer-flowering creepers that have been trained to give shade may now be cut back, and the old stems cleaned of insects, before housing other plants. Such climbers as *Bignonia venusta*, which blooms in winter only, should be let alone.

### Verbenas

*Messrs. Editors American Farmer :*

We do not think that even the most captious person could find fault with the weather the present season, so far at least as vegetable growth is concerned. Yet we find the *Verbena* behaving exactly as in seasons less propitious, growing and blooming finely up to late July or early August, and for the remainder of the season looking as miserable as it is possible to conceive of a plant capable of presenting so much beauty. We may just say here that we have not and never have had the slightest wish to eliminate the *Verbena* from our list of bedding plants; on the contrary we think a well-planted, well-kept and well-behaved bed of *Verbenas* is a thing of beauty. "But there's the rub." It will not behave, having of late years lost all sense of propriety, of consistency even; as when all its congeners are doing their utmost to appear lovely, the *Verbena* puts on the worst possible appearance it can assume, without even one redeeming trait.

After trying about everything that has suggested itself, or been recommended by others, we have come to the conclusion that there is but one use to which the *Verbena* may be satisfactorily put, and that is for carpeting—say, for instance, under standard *Cantanas*, in rose-beds, where the roses are not too thickly planted. On narrow rose-beds—all rose-beds ought to be narrow no matter what their shape, so that the buds may be reached without stepping on the bed, unless the gardener is very patient and very pious—one row of roses (good plants) through the centre of the bed, a row of geraniums next, then fill the whole in with *Verbenas*. This does very well. The same may be said with regard to Standard *Cantanas*, &c.

We simply throw out these as mere hints in the way of what we are doing; and our reason for using these plants in the manner herein indicated is to retain the *Verbena* for its beauty in the earlier part of the summer, and that the other and taller plants used may by their bloom, in some measure at least, hide the defects of the carpeting plants.

If any of your readers have other ideas on the subject we would be much pleased to see them given in the pages of the *Farmer*.

Our friend of the Rosebank Nurseries advises raising *Verbenas* from seed—advice we endorse; but this mixed system does not suit our style generally.

N. F. F.

### Hyacinthus Candicans.

Messrs. E. H. Kreelaga, Haarlem, have the following touching this plant in the *London Garden* of August 3d, to which we may add that this *Hyacinth* was in bloom at the Centennial Exhibition at Philadelphia, and that it is truly a lovely plant:

This is now in full bloom in our nursery, and is the admiration of all who see it.

We have a large bed of it bordered with *Glaudiolus Brenchleyensis*, and the pure white of the numerous flowers of the *Hyacinth*, gracefully arranged on stems three feet and more in height, contrasts strikingly with the intense red of the *Glaudiolus*, which is just the proper height to make a good edging for the taller *Hyacinth*.

This is an arrangement that we can recommend, and both plants rank among the best for the summer decoration of our gardens.

### The Grange.

#### The Work of the Grange.

T. B. Harwell, Master of the Tennessee State Grange, writes to the *Southern Husbandman* as follows:

"It is clear that the grange is doing a most excellent work in arousing the intelligence of the farmers of the country, and quickening thought, and we are fast becoming not only a reading, but a writing people as well, as the 'Grange Reports' so clearly prove. This is one incalculable good the farmers derive from the Order, the very best educator within their reach; and as they become better informed as to its purposes and methods, they will understand better its value to them, and will give it an earnest support. They are too accustomed to toil and hardship, too weary in the pursuit of a positive good, because it requires a personal toll and a self-sacrifice as well as united effort. But perseverance in the work of the grange under intelligent direction will soon become a labor of love, and the acquisition of practical knowledge, according to the grange plan, a pleasing task. It must be apparent to every observer that, since its first introduction among us, it has been exercising quietly, though surely, a most excellent influence among the masses, operating through the hearts and minds of those engaged in agricultural and kindred pursuits, developing, purifying and elevating the good in the one, and educating, expanding and informing the other, until now we can see the shadow of the coming revolution—that which the Order contemplates as the end of its labors: a prosperous agriculture; an intelligent, happy people, and a wise and good government.

### Thought.

Farmers do not put thought enough into their business, not enough thorough investigation, close study, personal experience, patient examination of causes and effects, comparison of methods, inexpensive experiments; they deal too much in generalities, in guess-work, in traditions, in whims, in signs.

#### Hints to Farmers.

A bare, lean pasture enriches not the soil, nor fattens the animals, nor increases the wealth of the owner. One animal well fed is of more profit than two poorly kept. The better animals are fed and the more comfortable they are kept the more profitable they are; and all farmers desire to work for profit.

High farming is simply making the most of our resources. It is simply putting our work where it will do the most good, and suffering no wastes to exist. It requires skill more than money, and good management rather than costly tools, fine stock and showy buildings. It is not altogether in burying miles of tiles in the ground, but in bringing our fields under such a degree of cultivation, according to our means, as will produce crops with the greatest profit. The farmer who gains the most from the least outlay is a "high farmer."

#### The Results of Co-operation.

The following statement is not conjectural, but from actual business done by the St. Louis Purchasing Agency. The amount saved to Patrons for six months was \$27,488.00:

On sewing machines.....	\$3,825.00
On corn planters.....	1,137.00
On cultivators.....	2,530.00
On mowers and reapers.....	7,536.00
On grain drills.....	460.00
On groceries.....	8,000.00
On dry goods, notions, boots and shoes.....	4,000.00
	<b>\$27,488.00</b>

The Ainsworth Co-operation Store, at Ainsworth, Washington Co., Iowa, sold during its first year \$12,000 worth of goods on a capital of \$2,277, and at the end of the year the total assets were \$7,398.90.

North Somerset Grange, in Maine, began with a capital of \$2,200—sales \$8,000.

Honesty Grange, of the same State, began with \$400—trade in one year \$1,500.

In the same State, North Livermore Grange sold \$800 on a capital of \$150.

On an investment of \$500 the sales of Franklin (Mo.) Grange amounted to \$4,500.

A total saving of \$35,927.60.

Who will say that co-operation does not pay?  
—Fairlee Grange Garner. Q.

#### Baltimore County Grange

Will hold its annual meeting and basket picnic in Ridgely's Woods, near Lutherville, on Thursday, September 5th, when a large assemblage is expected of the farmers of that and adjoining counties, their families and friends.

The public installation of the officers of the Grange will take place at 10.30 A. M., the ceremony being performed by the Master of the State Grange of Maryland, Joseph T. Moore, Esq., assisted by P. A. Bowen, Esq., Master of Pomona Grange, of Prince George's Co.

Immediately following this ceremony, addresses will be delivered by the invited speakers—Dr. J. M. Blanton, Master of the State Grange of Virginia; James S. Robinson, Esq., Lecturer of Maryland State Grange; J. Wilson Magruder, Esq., Lecturer of Montgomery Co. Grange, and H. O. Devries, Esq., Master of Howard County Grange and Maryland State Agent. After their elucidation of grange aims and principles, the large platform will be cleared, and all so inclined can engage in the pleasures of the dance.

In connection with the meeting, there will be a show of live stock, products of the farm, garden and dairy, specimens of ladies' handi-

work and taste, domestic products, &c.; to all of which departments the farmers of the county and their families, whether members of the Grange or not, have been asked to contribute whatever is worthy of inspection by the visitors of the day.

So, likewise, manufacturers of and dealers in agricultural implements and machines, fertilizers, seeds, &c., have been invited to make a display of their wares and products.

From the number of responses already received, it is believed that in every branch a large and very creditable display will be made; and the fact that almost the entire bulk of the visitors will be persons engaged in or intimately connected with agricultural pursuits, renders the opportunity a good one to present to their attention such articles as are especially designed for their use.

It is understood that this out-of-door show for one day, is, of course, of a temporary and experimental character; but it is believed, nevertheless, that it will possess many points of interest, and there are those who expect it to lead to something more permanent and imposing.

There will be no stalls erected, except some pens for sheep and swine, but arrangements will be made for properly displaying horses, cattle, &c. Tables will be prepared for the exhibition of grains, vegetables, flowers, &c., and for the accommodation of dairy and household products, and other articles exhibited by the ladies. A spacious tent will be provided, for protection against sun and possible showers.

There are no prizes offered, and it was not thought that diplomas would be much valued by their recipients; but in order that some recognition might be given the merits of articles presented for exhibition, committees have been appointed to make a record of all deposits and to note their merits—this record and comments to be furnished the public press.

We give below a list of these committees:

*Live Stock*.—Capt. Chas. T. Haile, Thos. B. Todd, Chas. T. Cockey.

*Farm Implements and Machinery*.—Col. B. F. Taylor, George Chilcoat, Dickinson Gorsuch.

*Farm and Garden Products*.—Chas. W. Semmes, C. Lyon Rogers, B. McL. Hardisty.

*Plants and Flowers*.—Wm. D. Brackenridge, Mrs. P. H. Walker.

*Dairy Products*.—Chas. K. Harrison, Mrs. Robt. Piper.

*Domestic Wines Cordials, &c.*—Richard Woolen, E. F. Raphael.

*Hams*.—John Merryman, Mrs. Thos. Craddock.

*Bread*.—Mrs. C. Lyon Rogers, Mrs. B. F. Taylor.

*Cake*.—Miss Eliza Talbot, Miss Ella Jones.

*Preserves and Jellies*.—Mrs. Edw. P. Philpot, Mrs. Jas. L. Ridgely.

*Pickles*.—Charles B. Rogers, Mrs. Washington Stevenson.

*Needle Work, &c.*—Miss Bessie Jenifer, Miss Belle Brackenridge.

The speakers' stand and the platform where the installation will take place (which will be arranged as for a grange working in the fourth degree) will be handsomely decorated with ever-

greens, flowers, emblematic designs, &c.; this work having been committed to a committee composed of members from Homeland, Garrison Forest and Centennial Granges, and of which Wm. D. Brackenridge, Esq., has been made chairman, which, of itself, is a guarantee of the good taste and beauty which will prevail.

Though this meeting and show is held under the auspices of the Baltimore County Grange, it is not designed to limit it to the members of the order. All members of the agricultural community and those connected with it are invited to be present and participate in the celebration of the day. Committees have been appointed to solicit contributions to the exhibition and to take charge of arrangements in the several departments. A list of the chairmen of these committees is here given:

*General Arrangements*—Dr. G. M. Bosley.  
*Music and Platform*—C. Lyon Rogers, Esq.  
*Live Stock*—Geo. H. Merryman, Esq.  
*Farm, Garden and Dairy Products*—Col. Edw. F. Philpot.  
*Agricultural Implements, &c.*—Jacob M. Pearce, Esq.  
*Domestic Products and Ladies' Handiwork*—Mrs. Daniel Jenifer.  
*Reception*—Col. B. F. Taylor.  
*Order and Police*—Samuel Brady, Esq.

#### Howard County Grange

Held a public meeting and pic-nic on August 9th, near Cooksville, which was well attended, and very agreeable, it is thought, to all who participated.

Most of the members of the Executive Committee of the Maryland State Grange were present by special invitation—it being their first visit to Howard in their official capacity—and the State Master, Jos. T. Moore, Esq., presided.

The proceedings on the stand were opened with prayer by Rev. Mr. Shipley, and after the object of the meeting was announced in brief remarks by Prof. J. D. Warfield, addresses were made by Wm. B. Sands, Secretary of Baltimore County Grange and editor of the *American Farmer*; Chas. T. Cockey, lecturer of the Baltimore Co. Grange; and Jas. S. Robinson, lecturer of the Maryland State Grange.

An adjournment being had for dinner, the company broke up into parties of greater or less size, which, scattered over the fine piece of woodland, were soon intent on providing for the inner man and in friendly intercourse.

This part of the programme attended to, the younger part of the assemblage assembled on the platform prepared for dancing, while the elders engaged in conversation on crops, past and future.

#### Montgomery County Grange.

Held a public meeting and basket pic-nic at Great Falls on the 22d ultimo, which was well attended. Messrs. Isaac Young, J. Wilson Magruder, and F. A. Tschiffely delivered addresses. The ladies furnished beautiful music. The lunches in the baskets were heartily enjoyed, and everybody went home well pleased with what proved one of the most delightful meetings the Grange has had. D.

#### Choptank District Grange.

Held a public meeting, which was largely attended, for the installation of its officers, on the 7th ultimo, at Preston, Caroline Co. Most of the members of the State Executive Committee were present, and the installation ceremony was performed by Jos. T. Moore, Esq., State Master.

Addresses were made by P. A. Bowen, Esq., and Captain George Thomas, Masters respectively of the Prince George's and St. Mary's County Granges, and appropriate remarks were also made by the State Master, and by Thos. F. Shepherd, Esq., chairman of the State Executive Committee. Gen. E. L. F. Hardcastle is Master of the District Grange.

#### Farmers' Grange, No. 74.

Of Ruthsburg, Queen Anne's Co., dedicated on the 22d ultimo a new hall which it has erected with appropriate ceremonies,—the Master of the Maryland State Grange officiating as dedicating officer, and using the ritual prepared for such occasions by the National Grange.

A large number of patrons from adjoining counties were present, and joined in the service. Farmers' Grange, with its invited guests, visiting members, &c., assembled near its old place of meeting, and marched, carrying the emblems of the grange, its movable property, &c., and headed by the Centreville Cornet Band, dispensing good music, to their new hall,—a neat and well-built two-story structure, about 22 by 40 feet in dimensions.

Here the impressive and appropriate dedication service was performed by the State Master, Jos. T. Moore, in the presence of a large audience.

An adjournment was then had for dinner, after which a meeting was held out-of-doors, when addresses were delivered by W. Master Moore; James S. Robinson, Lecturer of the Maryland State Grange; Dr. Reynolds, of Caroline Co., and Wm. B. Sands, editor of the *American Farmer*.

A goodly number of persons were in attendance, and all seemed pleased with the manner in which the day was spent. The ladies of the grange had some well-filled tables spread with cakes, ice cream, &c., and the proceeds from which were appropriated to liquidating the small indebtedness remaining on the hall. Farmers' Grange has the reputation of being one of the most active and zealous in the State; and from the enthusiasm and animation displayed on the 22d, we can well understand how it deserves that character. Wm. Chambers, Esq., who is the Master, is an earnest, devoted and intelligent patron.

SPRINGVILLE GRANGE, No. 158, Carroll Co., has completed a new hall, which it proposes to dedicate about the 20th instant—the date not being definitely fixed.

THE GREAT GRANGE PIC-NIC, at Williams' Grove, Cumberland Co., Pennsylvania, was held on August 29th, there being some 15,000 persons present. Prof. S. B. Heiges, of York, and Col. Piollet, Master of Pennsylvania State Grange, made addresses.



## Work for the Month—September.

The greater the amount of matured thought given in advance to the questions arising as to the preparation of the land, the selection and application of the fertilizers and seeds, the easier will be the carrying out of the plans determined upon; but no after-efforts can atone for lack of intelligent forethought and provision.

**Wheat.**—It would be difficult to say what proportion of the decline in the productive capacity of soils is due to their imperfect preparation and not to their deficiency in the elements of plant-food. This food, though, to all practical ends, might as well be wanting altogether as to be presented in the soil in such a condition as to be unavailable—unfit for assimilation into the texture of growing plants. For the purposes of plant growth, all the elements which are necessary to produce the straw and the grain must be contained within the soil, and be so contained as to accessibility by the roots and as to solubility that it will promptly, just as the demand is made for it, furnish the nutritive particles in such shape and such abundance as will meet the needs of the growing organism. So far as the thorough cultivation of the soil may be necessary to comply with the condition, "tillage is manure." But other conditions must exist as well. A soil into whose pores water infiltrates and remains, becomes sour, cold and unproductive. The removal of this surplus water is the first object of the cultivator. But, besides this, the soil must admit light, warmth and air, without which the germination of the seed and the growth of the plant cannot go on; so a certain amount of moisture is necessary for the vital processes of growth. All these needs are secured by the effective pulverization of the soil. The most important initial steps, therefore, to the growing of good crops of wheat consist in the removal of excessive water and the sufficient plowing and perfect fining of the land. When the roots strike into water-logged strata below, and when the seed-bed is left full of lumps, rough and foul, such crops cannot be counted upon, no matter what the natural fertility of the soil, or what applications may be added to atone for its deficiencies.

After the land is well plowed and well harrowed, it is advantageous on most soils to use the roller, that the seed-bed may be made firm and compact,—a light and puffy condition being undesirable. It sometimes occurs that by turning under a luxuriant growth of clover, a heavy crop of pea-vines, or, as we had lately instanced to us, a rank profusion of rag weed, a puffiness of the soil ensues which is sometimes very pernicious in its influence. The English farmers sometimes, indeed, to produce a compactness of texture, drive a flock of sheep over the field. As to the choice of seed to be sown, the test of local experience is best to be relied on, though of course every intelligent farmer will be disposed at times to try the success which will attend essays with newer sorts. It is wise to make these tests on a small scale at first, and to extend them as a variety proves itself to be adapted to the circumstances in which it is

placed. As these tests go on the importance of selecting good clean seed, and of maintaining the standard of weight, plumpness and purity, ought never to be overlooked.

As to the preferable method of seeding, experience seems to demonstrate that, with occasional exceptions, the advantage of the use of the drill is great. The saving of seed, the diminution of the liability of injuring by frost, the placing of the seed and the fertilizer in immediate contact, the stirring of the surface soil just at the time the seed is deposited by the teeth of the drill, the regularity of the depth at which the seed is deposited, are all points which are to be counted in its favor.

As to the proper depth to deposit the seed, the following will be of interest:

*Depth of Planting Seed-Wheat.*

Experiments made by M. Moreau, of Paris, who formed 13 beds, in each of which he planted 150 kernels of wheat at various depths, viz:

At depths of	Came up	No. of Heads.	No. of Grains.
7 inches.	5	53	682
6½ "	14	140	3,590
5½ "	20	174	3,818
4½ "	40	400	8,000
4 "	73	700	16,500
3½ "	93	992	18,534
2 3-5 "	123	1,417	35,494
2½ "	130	1,590	34,349
2 "	140	1,590	35,490
1½ "	143	1,660	35,826
1 "	137	1,561	35,072
½ "	64	529	15,587
On the surface,	20	107	1,600

By this experiment the maximum as the number that came up was 1½ deep, the *minimum* at 7 inches; the *maximum* of the number of heads was also 1½ deep, the *minimum* 7 inches; but the *maximum* of the number of grains was 2 inches deep, and the *minimum* ½ inches deep. The range from 2 3-5 inches down to 1 inch, varies in those that come up only about 20, for the extremes of maximum and minimum of the heads 243, of the grains 2,331. Between 2½, 2 and 1 inches, of those that came up there is only a difference of about 10 at most; of the heads only 30; of the number of grains 1,476.

Looking at it, however, in another light, we may rate the depth of 2 inches as best, then 1½, then 2 3-5, then 1 inch, then 2½ inches. After 4½ inches the falling off of the product is ½; from ½ inch to the surface it reached to 9-10. Where there may have been extraneous causes influencing the difference between 2 3-5 inches and 2½ inches, which seem to vary from the general rule; but it may doubtless be considered, *so far as this experiment goes*, that the grain should not be sown at much greater depths than 2 inches, nor nearer than 1 inch from the surface. The difference to be allowed should respect the season, the nature of the soil, &c.

The washing of the seed-wheat to avoid smut is desirable. Some use a strong brine and dust the seed with pulverized blue-stone; others use a solution of the blue-stone, say one pound to a gallon of water and stir this among two bushels of wheat.

In sowing by the drill, from 5 to 6 pecks are generally used; when broadcasting, from 1 to 2 pecks more.

For fertilizers, when those of commerce are chosen, such should as a rule be chosen which

contain a fair percentage of ammonia,—nitrogen being largely demanded by the cereals. Hence the good effects seen in the use of Peruvian guano and ammoniated phosphates. Wheat besides, in its analysis, shows considerable potash; and where there is good reason to suppose this lacking it should be added in the fertilizer, and this fertilizer in all cases should be put as close to the seed as possible. A mixture of 600 lbs. Peruvian guano, 600 lbs. fine bone-dust, 600 lbs. dissolved bone, and 200 lbs of sulphate or muriate of potash, will make a good formula, and 350 to 300 lbs. per acre is a proper dose for most land. Most of our popular "super-phosphates" now contain potash.

**Rye.**—The crop ought to be gotten in at once, if it is not already done. For early pasturage nothing equals it. Land not in good heart ought to have a liberal dressing of some good fertilizer, say a super-phosphate or bone-dust, ashes and salt mixed. Five pecks of seed used to an acre is generally sown when the grain is to be harvested, and double that is not too much when the crop is to be cut green or grazed.

**Meadows.**—We repeat what we said about these last month. Barn-yard manure where it can be had is a valuable application, and nothing surpasses ashes in value. When bone-dust can be used, it ought to be of fine texture.

**Corn Fodder** ought to be carefully saved, when saved at all. Corn sowed for fodder is best cured early while the days are warm.

**Turnips** sown early in the month may make a crop with a favorable season.

### The Orchard and Fruit Garden.

Newly-planted orchards, if kept clear of grass and weeds, by cultivating in corn, or other crops requiring clean tillage, will need no further attention during present month; apple orchards in bearing, will, of course, be objects of interest now, as the fall varieties will be dropping fruit suitable for converting into vinegar—selling the best of what is not needed in the family, being careful to ship in good, clean baskets or crates; as it is very poor economy to ship any kind of fruit in old and dirty-looking baskets, when new and clean ones can be had at a few cents cost. All work tending to encourage or stimulate to late growth should be suspended in the peach orchard.

The old wood in blackberry and raspberry plantations should be removed, though in field culture of these fruits this part of their management is generally deferred until winter; but black-cap raspberries, where it is desirable to increase the stock of plants, must of necessity be put in nice condition ere this, as "tipping" can be done this month. By burying the ends of branches, where they exhibit a swollen appearance, as though they had been partially severed, every one will make a plant if buried a couple of inches deep in earth.

Strawberry beds should be kept clean of grass and weeds; and if cultivating in hills, the cutting off of runners must not be neglected. New plantations can be started this month, and, notwithstanding the great amount of praise bestowed on some of the new varieties, by those who have most of them, we seriously doubt if any thing

more reliable or profitable, as a market berry, than the Wilson, has yet been obtained,—very numerous claims to the contrary notwithstanding. The adaptability of the Wilson to all soils and situations, coupled with its uniform productiveness, give it a hold upon the favor of strawberry-growers that none of its boasted superiors have succeeded in destroying.

### Vegetable Garden.

Don't delay to clear away all remnants of summer crops, and do not let the ground become covered with weeds. Vacant spaces may be filled by sowing of late crops. Winter cabbage are sown here about the 20th to 25th of this month, and set out about November 1st. The date ought to be such as local experience demonstrates is the best, otherwise loss may be encountered by too early or too late sowing. Cauliflower seed should be sown about same time and plants wintered in frames. Earth up celery as it grows. In a well-sheltered place lettuce for spring use may be sown. Give spinach and German sprouts a rich place and sow at once. Turnips may still be sown on good ground.

### Home Department.

#### Sweeping.

*Messrs. Editors American Farmer:*

I beg you will not do as most gentlemen would,—pick up your hats and retire at the mere mention of my subject. I assure you I have not the slightest intention of raising a dust in these quarters, but merely to offer a few suggestions as to the use of the broom,—our favorite weapon of warfare, insinuations in regard to the "unruly member" to the contrary notwithstanding. I desire, however, to be clearly understood as expressing a partiality for the broom as a womanly weapon merely in our warfare with uncleanness.

It may seem that there is little to be said on this subject. And indeed if there were truth in the proverb that "practice makes perfect" there would be no need to discuss the matter at all; but practice by no means leads to perfection in sweeping or anything else unless perfection be the standard aimed at and we keep it clearly in view.

There are various devices besides the common and time-honored broom which claim our attention as sweepers; but one that I have seen can altogether replace the broom, even in sweeping carpets, for which these inventions are specially designed, because the broom is always needed with them in order to reach into corners and along the edges of the room. As carpet-sweepers, however, they have much to recommend them: less strength is required in their use than in the use of the broom; they remove the dust by taking it up into a pan attached, avoiding thus the moving of the dust over the carpet from one side of the room to the other, greatly to the advantage of the carpet, at the same time keeping the dust where it belongs instead of throwing it over walls and furniture, much of it to be thrown back on the floor in the process



of dusting. Unfortunately, however, these modern inventions are too costly and too easily impaired to admit of their coming into general use. And I most sincerely hope that ere those difficulties may be overcome there may be so few carpets in use that there will be no need for them.

Since there must, however, remain to us the necessity for the use of the broom, I would respectfully call the attention of housekeepers to the importance of more careful instruction of our servants, our children and oftentimes ourselves in the skillful use of it; economy of strength, economy of carpets, and the ultimate object of our labor, cleanliness, all demand more care in this respect than we are wont to give the subject.

In the first place, don't use the broom unnecessarily; when a few scraps can be removed as well by picking them up with the fingers or when a brush and dust pan will answer as well, it is folly to use the broom for it, and thus raising a dust about the room to the annoyance of chance occupants as well as giving yourself needless trouble in the use of the duster. When the broom becomes necessary there is a right and a wrong way to use it, and with by far the greater number it is not the right way that is adopted. The common practice with really many nice housekeepers, as well as those not so nice, is to use all the force at command in bringing the broom down upon the carpet, with a good spring forward, when the broom is raised more or less, as if to give the dust, disturbed by this emphatic stroke, a fair start in its flight over furniture and on to every part of wall or ceiling; this repeated until every part of the room has had its share. It would be well worth the while of some practical genius to ascertain what proportion rests on the walls and curtains—in fact, everything upon which it can rest, including the carpet, which is supposed to have been cleaned by the operation. Also how much has been driven through the carpet, and which the most vehement of sweepers can never remove until the carpet is taken off from the floor. This process I have seen repeated year after year by persons whose good practical sense was in most matters worthy of all respect; and with such the evidence of good sweeping lies in the amount of dust which has been thrown about the room, forgetting that notwithstanding their great precaution in opening windows and doors and removing furniture how much of it will find a lodgment within the room. Few can take the necessary care and labor to remove it from walls, curtains, &c., and the majority will not recognize the necessity for so doing except on extraordinary house-cleaning occasions, leaving it to be disturbed more or less with every current of air admitted from outside, gradually to find its way into the lungs of chance occupants of the room: no trifling consideration, in view of the fact that dust swept from the carpet is largely composed of particles of the carpet itself, and although so infinitesimal as to be unappreciable to the naked eye as they float about the room, except where only a few rays are admitted into a dark room, (which I dare say most of us have observed, exciting a

vast amount of wonder in our minds as children,) they are said by our learned physicians to be extremely injurious when admitted into the lungs. This of itself should be sufficient to lead thinking people to ascertain whether all this outlay of strength and tumult of dust really accomplishes its removal from the room. I will therefore leave the matter of undue wear and tear of carpets to suggest itself, as it undoubtedly will, when observation is turned in that direction.

I wish I might succeed in convincing others as thoroughly as I am myself convinced, that the method of sweeping which I have alluded to is not the right one, and also in the few hints I offer I may induce them to modify or improve upon it; or by bringing their own philosophy to bear, as I did, they may find out better ways for themselves. I find much depends on the manner of holding the broom: if it is held as nearly as practicable perpendicularly, drawing both hands forward with light, short and quick strokes, very much as a gentleman would like his broadcloth to be brushed, you will soon find that this way of handling the broom will not throw the dust further than you want it; throwing the broom up in front of you is what distributes the dust about so recklessly. I can sweep a large room that is much used, and by observing these precautions will not raise the dust far enough above the floor to rest on a bare centre-table of walnut so that you can write your name legibly on it; and I am confident there will be more to carry out in the dust-pan than would be gathered in the more vigorous manner of using the broom.

It is far better also to use the dust-pan several times during the sweeping of the room than to carry the dirt with the broom all to one point, which necessitates much more sweeping and increases the amount of dust thrown about.—For sweeping bare floors hair brooms are greatly to be preferred; they remove the dust more effectually, are less troublesome, and although more expensive at first they are so durable that in the end they are much cheaper.

It may not be improper in this connection to mention another method of cleaning carpets, which, as a substitute for sweeping, has strongly recommended itself to me in the practice of the very best housekeeper I ever knew: It is to use a cloth wrung from clean cold water, with which the whole carpet is wiped over; rinsing and wringing the cloth, and renewing the water as often as necessary. In my experience this is only practicable in rooms not liable to having sand or dust of any kind brought in on the shoes, such as parlors or bed-rooms, unless the brush and dust-pan are first used to remove such matters. The lady I referred to, however, has made use of this method during her whole housekeeping experience of nearly fifty years, and her carpets last longer and retain the original color better than those belonging to any body else within the range of my observation.—Something of this may be due to the extraordinary care which pervades the entire establishment. Any one who has not tried it would be astonished at the ease and facility with which it is accomplished; a half-grown girl or boy whom

you would not think of trusting with your sweeping, can, with a little oversight, be required to do that kind of work throughout a good-sized house without the least danger of over-exertion and with more satisfaction than ordinary sweeping would give as to results. It should also be borne in mind that this method obviates all the trouble about dusting or covering the furniture, as of course there is none but that which comes in through windows and doors. After all, this leaves us with the melancholy reflection that, in spite of our best efforts, dust is bound to get the better of us from the beginning even to the end. CERES.

### Accepting the Situation.

How to be admired and emulated are the few who resolutely "take things as they come," submitting to what they cannot avert with calmness and imperturbability utterly incomprehensible to the wrangling multitudes who fret and fume and worry on all occasions,—keeping themselves at the boiling heat no matter what the temperature. During the heated term just passed all may have noted how much the advantage they possessed who were able to "keep cool" in spite of the weather. They did not spend their substance in useless railings against what they were unable to control; and thus, by patient and wise submission, became masters of the situation.

How frequently we see even in persons of talent, feeling and judgment, a predisposition to oppose the inevitable and to chafe at trifles. We have known strong men, capable of great achievements, to have their equanimity entirely destroyed by a misplacement of a boot-jack or the loss of a shirt-button; and women, courageous under difficulties, to be entirely upset by equally trivial things.

They let themselves be ruffled and then forget that their hasty words and unguarded actions inflict wounds upon sensitive natures around them, the thought of which would pain themselves if they but realized it.

There is great heroism displayed in "living above circumstances" as it is called. Courage and fortitude are necessary not only when great losses and great trials come upon us, but in meeting the harassing little trials that beset us in all the vicissitudes of life. Those who accept the pains as well as the pleasures in this state of existence are *nature's noblemen*,—nay, more: they are the practical Christians and philosophers whose self-control should be trumpeted aloud, and whose example should be held to view by all who desire to promote peace and tranquility at home. When we consider how insufficient are the causes for worry in most cases, and remember the comforts which at all times over-balance them, whenever there is a readiness to recognize and accept them, does there not come over us a longing for more perfect self-government?

Temptations come to us from without and within; but for the purposes of life all things wise and best have been ordered. It is therefore for us to discriminate between the "ills which

may be cured" and those "which must be endured." And when the unavoidable pricks the senses let all remember the blessing promised to "him that overcometh." T.

Will some kind friend who has had experience in those things please inform me what I am to do with my "Pampas grass" as winter approaches? also as to the treatment of my "Tuberous-rooted Begonias." Does Smilax require any peculiar treatment? I had several apparently healthy plants this spring, which grew on a yard in height, putting out lateral branches with every indication of doing well, when they suddenly turned yellow, dropping all their leaves and finally, although I tried various changes in height and moisture, they all died outright. I want to replace them when I bring my flowers into the conservatory this fall, but shall not attempt it without more knowledge as to what they require. CERES.

### Domestic Recipes.

#### Messrs. Editors American Farmer:

Enclosed please find promised receipts for *American Farmer*. Should any of the ladies be pleased with them, I hope they will acknowledge the same by sending some of their own receipts; your correspondent ("Farmer's Wife") should send her pickle receipt, which is excellent, in time for the November number.

**TO STEW PEARS.**—To four dozen pears, three-quarters of a pound of brown sugar and three pints of water. Boil the pears in the water until quite tender, then sprinkle the sugar over the pears and let them boil until the syrup is formed; then take out the pears and lay them on a dish, and boil the syrup until quite thick, then pour back on the pears.

**TO PRESERVE PEARS.**—Peel, and boil the pears with a little green ginger, until they can be pricked with a fork; weigh the pears after boiling, and allow a pound of sugar to each pound of fruit; make the sugar into a syrup, with a cup of water to a pound of sugar; drop the pears into the syrup, and boil with lemon-peel, cut in strips; when done enough, take the fruit out, and boil the syrup until quite thick, when it must be poured hot over the fruit; when cool, put in jars and seal as usual. Allow one lemon to three pounds of pears, using only the yellow rind; if the flavor is not desired, the lemons may be omitted.

**TO CLARIFY SYRUP FOR PRESERVES.**—Put one pint of cold water in a kettle; beat the white of an egg and stir it into the water until it thickens; then add the syrup nearly cold. Fruit should never be put into the syrup while it is hot. Allow it to cool. It makes the fruit hard and shrinks it.

**PEACH MARMALADE.**—One pound of peaches to half pound of sugar; put a layer of peaches, cut thin, and a layer of sugar; boil until they look clear. Boil very slowly at first, and stir constantly to keep it from burning. Each piece should look perfectly clear. To preserve peaches in large slices, put three-quarters of a pound of sugar to a pound of fruit. For this, the Heath peach is best.

**STEWED APPLES.**—Core and pare the apples; put as much water as will half cover them. To twelve apples put one pound of sugar, and cook all together; as they are cooking, turn them constantly every way carefully with a spoon; when done and look clear, take out, skim the syrup, and boil ten or fifteen minutes more until it is rich. Put the syrup by itself in a bowl, pouring it over the apples when you dish them for the table.

**FRENCH LOAF.**—Put a dozen of tomatoes in the bottom of your pudding-dish; then a layer of onions sliced very thin, and a little pepper and salt; then spread two slices of bread very thick with butter; lay these on, then another layer of onions, and lastly a layer of tomatoes; bake from one to two hours, according to the size loaf. It makes no difference which are used—canned or fresh tomatoes.

**SQUASH FRITTERS.**—Take three medium-sized squashes, pare, cut up and boil tender; mash and drain, season with pepper and salt; add one cup of milk, (cream is better) the yolks of two eggs and sufficient sifted flour to make a very stiff batter, or they will be hard to turn; lastly, stir in the beaten whites of the eggs. Have the lard boiling hot, and fry brown.

**SUCCOTASH.**—Take two quarts of shelled beans and put into four quarts of cold water in a covered iron kettle, with a half pound of salt pork; let them boil half an hour; take thirty ears of green corn, cut the corn off the cob, scrape the cobs lightly to get all the juice and pulp. Turn the corn into the kettle with the boiling beans and pork, and let them boil together for half hour, then add a quarter of a pound of butter, stir well, and send hot to table.

**CORN PUDDING.**—One pint of scraped corn, four eggs well beaten, two cups of cream, a tablespoonful of butter; pepper and salt to the taste. Bake in a dish.

**HOW TO BOIL GREEN CORN.**—Let the water be boiling; add a little salt; drop in the corn, and boil ten or fifteen minutes; then take out and cover with a clean towel for a few minutes before serving.

**LEMON ICE CREAM.**—One quart of rich cream, half a pound of loaf sugar and one large or two small lemons; rasp the rind off the lemons with the sugar instead of a grater, but be particular in not getting to the white, which will make the cream bitter. Dissolve the sugar in the cream and add the juice of the lemons, stirring it all the time to keep it from curdling. Freeze it without boiling the materials.

MRS. T. A. H.

### Making Cider Vinegar.

Where vinegar is used for culinary purposes it should be of the best, and least detrimental to health possible; such I believe is that made from pure cider, manufactured from good apples,—they containing among their constituent elements the germs of vinous and acetic fermentations essential to the making of good vinegar. The juice of apples, when first expressed, contains acetic acid and sugar, or saccharine matter. Immediately following the expression of the apple juice the vinous fermentation commences, which

is rapid or slow according as the conditions of air, heat, &c., to which it is exposed, may be.

Cider will not go through its essential fermentations without the presence of oxygen; and the more the cider is exposed to this essential element, under favorable conditions, the sooner vinegar is produced. But few common farmers pursue a course which will produce vinegar from cider in a few hours, but rather take a longer time and get what they consider a better article.

In making cider vinegar, the course I have pursued is, first to mash, and express the juice of good cider apples, strain this free of pomace, &c., and put in clean sweet casks set these away in the cellar or shed, as convenient, allow vinous fermentation to exhaust itself, keeping the cask full with the bung out. If the cider is made in the fall, October or November, I prefer to let it stand in the cellar till the following spring, by which time acetous fermentation has fairly begun. Now take a clean cask, or one previously used for vinegar, place it in a warm location, shed or chamber over answers, draw out and fill the cask one-half full—not particular as to just the quantity—agitate by drawing out a gallon or two and pouring back every other day, till it tastes quite "vinegary," when you can draw from the cider, and fill in a gallon or two once a week, still keeping up the agitation by drawing from and returning to the vinegar cask. In this way I have made very good vinegar in about eighteen months from the apple; the time may be lessened by refraining to add any cider after filling in the first time.

Many suppose it necessary to procure some "mother" of vinegar, or some substitute, but I have never found it essential, as it forms naturally when we use good cider. There is a considerable difference in apples—some contain very little saccharine matter, such make poor cider, and poorer vinegar, naturally.—*Cor. American Rural Homes.*

### "Talks on Manures."

Just as we go to press we are in receipt from the publishers, The Orange Judd Co., of New York, of a copy of this work, by Joseph Harris, of Rochester, N. Y., who is distinguished for his skill as a practical farmer as well as for his thorough acquaintance with chemical science, and who has the happy facility of imparting his meaning in a plain and familiar style very acceptable to the average farmer, who is apt to be puzzled with the nomenclature often too profusely employed.

We have so far been able to give the book but a cursory examination, but this alone is sufficient to show that it is as full of matter, useful, solid matter, as an egg is of meat. The topics discussed are just those on which all farmers want light; the tables are conveniently arranged; their accuracy unquestionable; and the volume will be found to fill an important place in American agricultural literature. We shall be glad to see it in the hands at least of every young American farmer.

## The American Farmer.

PUBLISHED ON THE FIRST OF EVERY MONTH

By SAM'L SANDS & SON,

At 128 W. Baltimore Street, (sign of the Golden Plow,) Baltimore, Md.

WM. B SANDS, Proprietor.

SAM'L SANDS,  
WM. B. SANDS, { Editors and Publishers.

SUBSCRIPTION, \$1.50 a year, in advance. To Clubs of five or more, \$1.00 each. For \$10, eleven copies will be sent.

### ADVERTISING RATES.

	1 Mo.	3 Mo.	6 Mo.	1 Year.
One Square, 10 lines.....	\$ 1.50	\$ 4.00	\$ 7.00	\$ 12.00
Quarter Page.....	6.00	15.00	22.50	35.00
Half Page.....	12.00	30.00	40.00	70.00
One Page.....	20.00	45.00	75.00	120.00

Cover Pages subject to special contract.  
Transient Advertisements payable in advance—all others quarterly.

Advertisements should reach us by the 27th of the month, to secure insertion in the succeeding issue.

BALTIMORE, SEPTEMBER 1, 1878.

### Gen. Bethune's Paper,

To which we give the leading place in this issue, will be read with interest. We thought of considering at length some of the points it presents, but concluded to wait to see what responses it might draw from those who recommend the employment of sheep as an element in the amelioration of impoverished soils, and we will only remark that he fails to do justice to the sheep even in fathering upon them the claim that sheep can "make something from nothing." The intelligent and experienced among them are far from doing this, though many an impetuous and careless farmer, hearing the oft-repeated proverb that "the foot of the sheep is gold," has invested in a flock which rapidly diminished and finally disappeared without enriching his land or purse. It is no more reasonable to count upon a cow giving the milk from her udder which does not "first go into her mouth" than to expect that sheep "can live and thrive upon bushes, briars and noxious weeds." There are farmers who have tried this—omitting judicious management as to other feed, as of grain, and shelter—but their experience has not been such as to stimulate others to follow their examples. The results with more thoughtful men, who have used sheep as a cheap and convenient vehicle for converting raw materials into a vitalized and effective manure and for its even distribution, have been more fortunate, and from such as these we hope to hear.

### Republication of Prize Essays.

Our intimation that we might reproduce the essay of Edward Stabler on the Restoration of Worn-out Lands, to which was awarded the first prize of those offered by the senior editor of the *American Farmer* some thirty years ago, is heartily received by our readers; and further consideration of its appropriateness to the present day, and to the needs of our present landholders, induces us to announce that we will reprint it. The first installment will be given in our October No., and it will be finished in one or two succeeding issues.

We think we can also safely promise to give the essay, on the same subject, of Commodore Jones, to which was awarded a prize in 1853 by the Maryland Agricultural Society, and the reappearance of which is called for on another page by Mr. Hayward.

Both these papers are replete with sound suggestions, as applicable to the condition of our farmers now as when they were written; and, though circumstances have changed, the principles which they announced are as sound as ever; and we believe our readers will consider themselves our debtors for the opportunity they will have of perusing these valuable essays.

To give as wide a circulation as possible to the essays referred to above, we will furnish the *Farmer* for the months of October, November and December for the low price of 25 cents, to all names received before October 1st. May we not expect this will be an inducement to our present subscribers to send the *Farmer* on this trial trip to many new ones?

### Mr. Sotham on the Herefords.

A passing allusion in our pages to this gentleman in stating a fact which admits of no denial—that his efforts some years ago to make the Hereford cattle rival the Short horns in popular favor failed utterly—has had the effect of resurrecting him from a silence, so far as we remember, of certainly a double decade.

In a letter which he has published on the subject, we find nothing new, and nothing to cause us to review what we wrote—except what we said in our May issue as to the manner in which he carried on his side of the controversy. We will now add, that if he was then chivalric and courteous, he is so no longer. His recent performance reveals ill-humor, and his ascriptions of prejudice, unworthy designs, and low motives, to those whom he does not know, and of whom he ought to know they could not be true, is simply indecent.



**Fertilizer Advertisements.**

A number of houses in the fertilizer line offer their products in this issue of the *Farmer*.

The Maryland Fertilizing Co. have a variety of brands, all adapted to fall crops, and also offer to put up fertilizers by formulas furnished them.

Slingshuff & Co. offer their special brands, Dissolved Bone, Bone Ash and S. C. Phosphate.

R. W. L. Rasin & Co. their standard preparations, Raw and Dissolved Bones, Potash Salts, &c.

J. J. Turner & Co. present the claims of Excelsior and Ammoniated Super-phosphate.

John Q. A. Holloway offers the same brands.

Wm. Davison & Co. prepare the Stockbridge Manures and sell chemicals for home-made fertilizers.

Joshua Horner offers his Bone-Dust, Super-phosphates and Chemicals, &c., for manufacturing fertilizers.

E. L. Coulson advertises his Ground Bone and Bone Meal.

John S. Reese & Co. their Ammoniated Phosphate and Dissolved Bone.

Voss Brothers offer Peruvian Guano of guaranteed quality and condition.

P. Zell & Son advertise their Pure Super-phosphate and Economizer.

John M. Rhodes & Co. their Standard Manures for all crops.

The Chemical Co. of Canton make a specialty of mixing fertilizers on formulas, and offer their "Colgate Manure."

R. J. Baker & Co. present their Pure Super-phosphate and Chemicals for making fertilizers.

L. J. Warren offers Lee's Prepared Agricultural Lime.

A. G. Griffith offers his New American Fertilizer.

Jno. R. Long & Co. their Grangers' Favorite, which they sell through the Maryland Grange Agency.

Thos. C. Price & Co. offer again their "Victor Fertilizer."

**Gen. Meems' Sale of Sheep.**

From a despatch to the *Sun* of this city we learn that this sale, held on the 29th ultimo, at Mt. Jackson, Va., was largely attended, and the bidding was spirited. Two hundred and three sheep and lambs were sold for four thousand five hundred and sixty dollars. The highest price realized was sixty-five dollars for bucks, and the lowest ten dollars for lambs, some lambs bringing as high as twenty-five dollars.

**Death of Ramsay McHenry, Esq.**

The death of this gentleman, on the 13th ult., will be noted with much regret by a large circle of friends. The deceased was well known as one of the most enthusiastic farmers of Harford county, Md., and was always identified with every measure for the improvement of the agriculture of the State. He was one of the original founders, and the Vice-President during its entire continuance, of the old Maryland State Agricultural Society, except when he was elected President thereof—and was always a prompt attendant of its meetings; and with his Ayrshire and other fine stock, added much to the general interest of its shows. He was prominent in his efforts for the establishment of the Agricultural College of Maryland, and, as chairman of the committee of the State Society, prepared the very able memorial to Congress for the endowment of schools for education in the several States, which led to the passage of the law making donations of the public lands, in proportion to the population of each, which has been availed of by nearly all the States of the Union in the establishment of agricultural colleges.


**Page's Traction Engine.**

We recently saw this engine on the Frederick road propelling itself and hauling a separator, and a water reservoir. The engine was covered with an awning, and as it did not produce much noise—thanks be to a contrivance for muffling the steam—we incline to believe that horses will very soon become accustomed to it. Those which were attached to the carriage in which we were driving did not seem to regard it with much fear.

Mr. Page informs us that he recently passed across the entire breadth of the city, and down the Patapsco Neck road, where he threshed 2,100 bushels wheat and returned, going 5 miles west of the city drawing his water tank, separator and the wagon, which carried 3 tons of coal down, loaded with 126 bushels of wheat, and some of the coal remaining unconsumed. The engine is now in Howard county, driving a separator and moving it over the country roads from farm to farm, having once at Mt. Airy ascended a grade of one to four.

Messrs. Page & Co., we hope, will have their engine on exhibition at the Baltimore county picnic, at Lutherville, on the 5th instant, as they contemplate doing, if it finishes in time the threshing it is engaged upon in Howard.



 We are requested to call attention to the advertisement of Mr. John Q. A. Holloway, who was long a member of the firm of J. J. Turner & Co., who now gives notice that he has reduced the price of Excelsior manufactured by him to \$46 per ton.

### The State Agricultural Society.

From notices which appeared in some of the daily papers a few weeks ago, but so far as we have noticed not recently repeated, it is the purpose of this not very robust association to hold an exhibition during the latter part of this month.

The present management seems rather to avoid giving publicity to its proceedings and intentions; and as to the programme adopted, if indeed one has been adopted, we have no information whatever, since not only has no advertisement been furnished us, but we have not been supplied with a copy of the premium-list and regulations of the show.

The design of holding an exhibition, if we are not in error, is rather to comply with certain requirements of the charter than with any hopes of making it an effective and interesting one—the general sentiment as to the usefulness of the association being pretty accurately indicated by the extracts from the Baltimore county papers elsewhere given.

### A Proposed Agricultural Society for Baltimore County.

The *Journal* and the *Union*, two spirited and well-conducted newspapers, published at Towson town, the county-seat of Baltimore, the most populous and wealthy of the counties of Maryland, and undoubted exponents of the sentiments of its people, join in recommendation for the establishment of a county agricultural society.

The *Journal* says: "The languishing condition of the Maryland State Agricultural Society suggests the propriety whether the farmers, horticulturists, fruit-growers, stock-raisers and others interested should not consider the propriety of forming an agricultural society for Baltimore county. Many of the counties throughout the State have agricultural societies in a flourishing condition. The county exhibitions are little worlds within themselves, managed by the real farmers, who have the growth and prosperity of their sections at heart. \* \* \* As far as the purposes of a State society are involved the State consists of about Baltimore, Carroll, Howard, Anne Arundel, and possibly a few exhibitors of other counties bordering upon those named."

And the *Union* says: "Since the inauguration of the Maryland Agricultural Fair at Pimlico, it being within our limits and somewhat convenient, the supposition was that farmers and others of Baltimore county would have all desirable facilities in exposing their products there. Such, however, was not the case. There was an absence of home-interests which operated against special emulation and self-ambition towards excelling. Then again the State Fair fell into careless management, people ceasing to give it either attention or patronage, and, languishing, it finally died or suffered years of suspense. There seemed neither pride, nor ambition, nor ability to keep it alive. In fine, it was a failure, though efforts are making to renew it again this fall. Not one citizen in fifty of Baltimore county, nor indeed of any other, did take the proper interest in that exhibition, except perhaps the first one or two seasons, nor are they likely to do so henceforward. There was no desirable field for emulative competition.

What we want then is an Agricultural Fair of our own county, in which every citizen will take a home pride and feel justified in giving it his or her hearty co-operative management. The Frederick, Carroll and other county people would, under no circumstances, be deprived of their county fairs. They are looked forward to from year to year with fond anticipations as forming episodes, socially and otherwise, profitable and delightful, fruitful always of pleasing memories and happy results.

We would have our Baltimore county citizens emulate the example set them so alluringly by their sister counties in having an Agricultural Fair of their own, to be held independent of all others. This done and proper encouragement given, the period must soon come when every resident of the county will rejoice in beholding its triumph."

Both these journals suggest that a point on the Northern Central Railway would be the most convenient and easily accessible location for the grounds of such a society, and that the officers of that road would give effective co-operation and assistance to the enterprise located on its line.

The opening up of the subject by those two influential local papers has had the effect of producing much interest in the agricultural community of the county, and we are advised that it is probable some steps will be immediately taken to give a practical direction to the movement.

Should the modest show at the farmers' picnic of the Baltimore County Grange on the 5th instant prove a success, it will form a good argument for active steps in favor of a more permanently-organized Fair association. Of the demand and room for such an one, we can second emphatically the position of our Baltimore county cotemporaries.

The *Sun* of this city, noticing this movement, comments editorially as follows:

"There, is however, at this time another matter of importance under consideration. It is the organization of an agricultural fair for Baltimore county, which, like the fairs held in Carroll and Frederick and other counties in this State, is to be altogether independent of the State fair, although capable of being made subsidiary to it. It is held that at the county fairs, county interests are better considered; that they are taken hold of with pride when neighbor exhibits against neighbor, and the prizes awarded for things that are of local excellence, and, therefore, are incentive to emulation. Apart from these, county fairs, like the annual Grange pic-nics, are full of pleasant anticipation, and furnish opportunities for exchanging views in regard to county matters generally that lead to promote combined action on occasions when the best interests of the county would seem to require it."

#### Agricultural Fairs.

Mr. Alexander Hyde, a well-known farmer and writer for the agricultural press, contributes to the *Country Gentleman*, some suggestions as to the management of these institutions which are seasonable and pertinent. After an allusion to the celebrated Pittsfield Fair, which he styles the model county fair of the country, and which was held, not in an enclosure, but under the shade of a great elm, where there were no premiums offered, no gate fees, and where all were welcome to see the stock, and an allusion to the important influence it exerted, and its value as an educational institution for farmers, he says: There is some complaint now—and not without foundation—that our agricultural fairs have degenerated; that they are no longer cattle shows, managed for the benefit of farmers, but horse trots, conducted with an eye to speculation. It must be confessed that the tone of most of our fairs is not up to the old standard. The crowd that attend them do not go for instruction and improvement, but for amusement. Jockeys and loafers are in the ascendency, while farmers take the background, many declining to exhibit their stock, as so little attention is paid to it—the horse trot absorbing all the interest.

It is not too late to save these institutions from utter debasement. Some of our State and county fairs—notably that of the New York State Society—have maintained their integrity, and are managed on a strictly agricultural and industrial basis. There is not in the country a more educational institution than the New York State Agricultural Society, and at its fairs there is an assembly of the most intelligent yeomanry and cultured gentlemen from all parts of the country, who are drawn together by the magnificent display of stock and the products of all kinds of industries. What one society does, another may do. Farmers should attend the annual meetings of their respective societies, and see to it that only true men are elected to the management. If the election is left by default to go into the hands of jockeys and demagogues, farmers have no one to blame but themselves. Cattle shows and fairs are a peculiarly agricultural institution, and should be run by yeomen, and for the benefit of agriculture,—not

to send this man to Congress, put that one into the gubernatorial chair, and aid another in his gambling pool.

That there is need of reform in some of our agricultural societies there is no doubt. When a few hundred dollars are offered as premiums for the best cattle, sheep and swine, and for the best farm products, while thousands are paid out in prizes to fast horses, "there is something rotten in Denmark." At one famous fair the prizes for horses were paid in full, and only 50 per cent. allowed on the premiums for cattle and other stock. This was neither just nor generous, and should not be tolerated.

#### Harrowing Wheat.

An English farmer writing to the *Country Gentleman* on this subject, says:

Harrowing wheat is just now exciting some attention as a comparatively new practice in American farming. As long ago as I can remember (some forty years) it was a common custom in the best wheat-growing districts of England. It requires some discretion as to the time and manner of application, and where sound judgment is intelligently applied there need be no misapprehension as to the results. The best time seems to be as early in the spring as the harrow will work properly, and not bury the young wheat, but never after the wheat has outgrown its grassy condition. A heavy harrow, and even a smoothing harrow, are neither of them the best harrow for wheat at any time or season. Light harrows, with well-pointed small teeth thickly set, are always more effectual for shaking out the seedling weeds and lightening up the surface soil, than any other. There is really a great deal more in the teeth being kept well-pointed than in the shape or make of the harrow, and the whole frame-work and substance should be so light that an active team can give that peculiar wavy, undulating motion, which is always so effective. There may be conditions of land where a heavy harrow would be beneficial, but they are not frequently found in a well-tilled wheat field. I have always found the best results to follow either from direct or diagonal harrowing across the drills, particularly after the horse or hand-hoe has been used. It must be remembered that harrowing wheat is more beneficial immediately after the hoe than at another period. By crossing the drills, every particle of soil is moved, and almost every weed is extirpated.

The best harrow I have ever seen or used for either harrowing wheat or any other grain, or for covering grass or any small seeds, is known in English farming as Phillips' lever or extirpating harrow. It consists merely of a set of teeth, which can be attached to any ordinary wheel horse-rake, by substituting them for the rake teeth. Each tooth is about three inches in length, and there are three on each arm, arranged in a triangle, so that every tooth is bound to a separate track, and cannot follow its neighbor. One great advantage in this harrow is that each lever arm, with its three teeth, is suspended independently of its neighbor, and can be raised separately, and any obstruction falls from it. When turn-

ing at the ends or headlands, the whole of the teeth are lifted from the ground, and no damage is done to the tenderest crop. I have used this harrow to great advantage even in young turnips, running directly across the drills. Indeed, wherever a light harrow is wanted, it is superior to any implement I have seen, either European or American. In point of economy it is second to none, as any one running a horse-rake can use the frames without any alteration for the lever harrow.

While on the subject of harrowing grain, let me observe that there are occasions when the ordinary horse-rake can be used with greater advantage as a cultivator than any harrow yet invented.

### Fodder Corn.

In using fodder corn almost all the farmers of our acquaintance commence at some corner of the field and cut clean each day as far as they have to go to get enough for their cows. A much better way is to cut only half of it at first and allow the remainder to get more matured. The two outside rows should be left standing, the next two fed and cut as wanted. Then two more rows should be left and the next two cut. So on through the field. It is but very little more work to do this than to cut the corn clean. It is much better, because taking out two rows from every four will give the two which remain a great deal more sunlight, air, and plant food from the soil, than they could otherwise secure. As long as all the corn stands in a thick clump none of it will grow to the best advantage. That which is cut out, two rows at a time, suffers no possible loss. It is just as good as any of it will be if allowed to stand in the usual way. The rows which remain after the others have been removed will be superior to what any would have been if the common method of cutting is pursued.—*New England Homestead.*

### Maryland County Fairs.

Baltimore County (Grange,) Lutherville, September 5.

Sandy Spring, Montgomery County, Horticultural, September 5.

Montgomery County, Rockville, Sept. 11-14.

Talbot County, Hambleton Park, Sept. 11-13.

Kent County, Worton, Sept. 14-20.

Frederick County, Frederick, Oct. 8-11.

Harford County, Belair, Oct. 8-11.

Somerset County, Princess Anne, Oct. 9-11.

Washington County, Hagerstown, Oct. 16-18.

Western Maryland, Cumberland, Oct. 22-25.

Dissolve common salt in water, sprinkle the same over your manure-heap, and the volatile parts of the ammonia will become fixed salts, from their having united with the muriatic acid of the common salt, and the soda thus liberated from the salt will quickly absorb carbonic acid, forming carbonate of soda; thus you will retain with your manure the ammonia that would otherwise fly away, and you have a new and important agent introduced, viz.: the carbonate of soda, which is a powerful solvent of all vegetable fibre.—*Chautauqua Farmer.*

We are indebted to ROBERT MANNING, Esq., Secretary, for a copy of Part I. of the *Proceedings of the Massachusetts Horticultural Society* for 1878, containing some very excellent papers.

Col. Crutchfield, of Tenn., says:

"In the spring of 1877, I sowed a field to clover; during the summer the rag weed was about to take possession of it and smother out the clover. I cut it and cured it, and stored it away in the shed, salting it as I hauled it in; upon this the sheep have principally fed this winter, preferring it to the best timothy hay. I market my mutton at home markets and my wool in Boston. My flock averages about nine pounds each of fine combing wool, not surpassed by any, and retains the fineness of fibre and softness to the touch transmitted by the Merino. I sent samples of wool from sheep of my own breeding, and samples from an imported Cotswold to Boston for comparison—the preference was given to that of my own breeding, it being equal to the imported in every respect, and superior in strength and fineness of fibre. I would prefer to market my wool at home, but from some cause there is too great a margin between the home and the Boston market. It costs me in commissions and freight less than three cents per pound to market it in Boston."

The number of vessels arriving in the port of Baltimore under charter to carry wheat to foreign markets was never equalled, many of which are destined to French and other Continental ports with which heretofore we have had little direct intercourse. Shipments so far to Great Britain can scarcely be said to have begun. The deficiency there of their own crops, and the needs of France, will make very heavy drafts upon this country for her wheat, and though we may be sanguine, we look for higher prices to prevail. To show the vast increase at the port of Baltimore (and no doubt the same is largely experienced at other ports) we annex the following statement from the *American's* report: The total exports from January 1st to August 22, 1877, were 1,006,506 bushels, and in the same time this year the aggregate was 8,662,966, an increase of over seven and a half millions of bushels. Of corn the exports in 1877 to August 22 were 14,359,598 bushels, as against 14,283,303 bushels in 1878.

### New Advertisements.

F. H. Wilson.—Asbestos Roofing and Paints.  
John Bullock & Son.—Ground and Dissolved Bone.  
John M. Rhodes & Co.—Standard Manures.  
John Q. A. Holladay.—Reduction in Excelsior.  
Thos. C. Price & Co.—Victor Fertilizer.  
A. G. Griffith.—Great American Fertilizer.  
John R. Long & Co.—"Grangers' Own" Fertilizer.  
L. J. Warren.—Lee's Prepared Agricultural Lime.  
S. B. Sexton & Co.—Heaters.  
B. C. Bibb & Son.—Stoves, &c.  
W. E. Thornton.—Laroque's Anti-Bilious Bitters.  
W. L. Boyer & Bro.—Farm Grist-Mill.  
J. W. Kerr.—Nursery Stock.  
John Sand.—Trees, Plants and Dutch Bulbs.  
Elhwanger & Barry.—Trees, Plants, &c.  
Elhwanger & Barry.—The Waterloo Peach.  
Rev. Geo. Morrison.—Pigs For Sale.  
American Vermilion Works.—Mixed Paints.  
Leo Weltz.—Forest Rose Strawberry Plants.  
J. A. Dillon.—Sharpless Strawberry.  
R. G. Hanford & Son.—Pear Trees.  
R. G. Hanford & Son.—Dwarf Pear Trees.  
Maryland Horticultural Society.—Annual Exhibition.

## THE AMERICAN FARMER.

**Messrs. Ellwanger & Barry's Catalogue of Fruits for 1878-'79** is received, and is, as usual, not only a complete index to their extensive stock, but contains much information as to the newer fruits, which it would be difficult to find in so compact a form elsewhere. It is illustrated by a colored plate of the Sharpless Seedling Strawberry.

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To new subscribers for 1879 we offer the last three numbers of the volume for 1878 free, provided their names are received before December 31.

### Baltimore Markets—August 31.

**Breadstuffs.**—Flour.—Quiet and steady, with inquiry good. We quote: Howard Street Super \$2.50@3.25; do. do. Extra \$3.50@4.50; do. do. Family \$4.75@5.25; do. do. do. trade brands \$5.50@5.75; Western Super \$2.50@3.25; do. do. Extra \$3.50@4.50; do. do. Family \$4.75@5.25; do. do. do. trade brands \$5.50@5.75; City Mills Super \$2.50@3.25; do. do. Extra \$3.50@4.00; do. do. Rio Brands Extra \$5.50@5.75; Spring Wheat Flour \$5.00@6.00; do. do. patent \$6.50@7.00; Fancy brands \$6.25@6.50; Ficklen's Bride-water Family \$6.50; Fine \$2; Rye Flour \$3.00@3.50; Corn Meal, City Mills \$1.00; do. do. City Mills \$1.00 lbs. \$1.20; do. do. Western \$1.00 lbs. \$1.10.

**Wheat.**—Active and firm. We quote: Southern Red, common 75¢@85¢; do. do. fair 90¢@1.00; do. do. Fultz \$1.05@1.08; do. do. long berry \$1.05@1.10; Western No. 2 red, spot \$1.09½; do. do. do. September deliveries \$1.09½; do. do. do. October do. \$1.09½@1.09¾.

**Corn.**—Southern quiet but steady. Western firm. We quote: Southern white 53¢@54¢; do. yellow 54¢; do. do. Western mixed, spot 50½¢@51¢; do. do. September deliveries 51¢; do. do. do. October 52½¢.

**Oats.**—Quiet and heavy. We quote: Western mixed 26¢; do. do. bright 27½¢@28¢; southern, fair to good 2½¢@26¢; do. prime 27¢@28¢; Pennsylvania 25¢@26½¢.

**Rye.**—Dull. We quote good to prime Southern at 54¢@56¢.

**Cotton.**—Little doing; the Cotton market steady and firm for spots. We quote as follows: Middling 12¢; Low Middling 11½¢; Strict Good Ordinary 11¼¢@11½¢; Good Ordinary 11¢.

**Hay and Straw.**—Hay is arriving more freely, and we write the market dull, with a declining tendency; but for both Hay and Straw prices are unchanged, and we quote as before, viz: Choice Cecil County Timothy, new \$14@15; Fair to prime Md. & Pa. Timothy \$11@12; Mixed Hay \$9@11; Clover do. \$7@8; Wheat Straw \$6@7; Oat do. \$5@6; Rye do. \$10@12.

**Provisions.**—Dull and heavy, and tending downwards. We quote: Bulk Shoulders, packed, 5½¢; do. L. C. Sides, packed, 6½¢; do. C. R. Sides, packed, 6½¢; Bacon Shoulders, packed, 6½¢; do. C. R. Sides, packed, 7½¢; do. Hams, sugar-cured, 12½¢@13½¢; do. Shoulders, sugar-cured, 7½¢@7¾¢; Lard, Redd, Hercul, 8½¢; Mena Pork, \$9; Butter—Western, good to choice, 10¢@16¢; near-by Roll, 12¢@14¢; Cheese—N. Y. State good to choice 7¢@9½¢; Western 6¢@8¢.

**Live Stock.**—Beef Cattle.—Last market was active, with prices quoted as follows: Best on sale \$5.00@5.25; generally rated first-class \$4.75@5.00; medium or good fair quality \$3.75@4.42; ordinary thin Steers, Oxen and Cows \$3.00@3.62; Milch Cows \$3.50@4.50. **Swine.**—Receipts large, with sales at 5½¢@6½¢ net. **Sheep and Lambs.**—Active, quotations being for butcher Sheep 3½¢@4½¢; gross. Stock Swine \$2.50@3.00; head. Lambs 4¢@5½¢; ½ lb. gross.

**Produce.**—We quote as follows for the articles named below, viz: Apples, \$1.00@1.75; Beans—N. Y. medium, ½ bus. \$1.75@1.80; Peas, black-eye, ½ bus., \$1.30@1.40; Peas, Western green, ½ bus., \$1.15@1.30; Potatoes, new, ½ brl., \$1.75@2; do. do., ½ bus., 50¢@70¢; do. Sweet, ½ brl., \$1.25@1.75; Onions, ½ brl., \$1@1.25; Beeswax, ½ lb., 25¢@30¢; Ginseng, ½ lb., 70¢; Seneca Root, ½ lb., 35¢@38¢; Virginia Snake, ½ lb., 10¢@12¢; Feathers, ½ lb., 35¢@45¢; Hides—dry country, ½ lb., 18¢@15¢; Sheep's Pelts, each, 50¢; @1.50; Tallow—country, ½ lb., 6½¢@7¢.

**Wool.**—Unwashed, coarse ½ lb., 25¢@30¢; do. fine ½ lb., 22¢@24¢; tubwashed, coarse ½ lb., 28¢@30¢; do. fine ½ lb., 28¢@35¢; fleece washed, 30¢@35¢.

**Tobacco.**—Receipts liberal, and Ohio and Maryland active in the better grades, though the low grades are dull and neglected. The ranch contractors are buying to some extent both of Maryland and Ohio, but as a rule the prices asked for each are above the limits of the contractors, and the purchases are limited. The German shippers are, however, buying very freely. We quote as follows: Maryland—inferior and frosted, \$1.30¢; sound common \$2.50¢; good do. \$3.00¢; middling \$3.00¢; good to fine red \$3.00¢; fancy \$10¢@15. Virginia common and good lugs \$3.50¢; common to med. leaf \$4.00¢; fine to good leaf \$8@10; selections \$12@16.



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The Largest and most Complete Stock of Fruit and Ornamental Trees in the U. S. Priced Catalogues sent as follows: No. 1, Fruit, with colored plate (new edition), 15 cts.; plain, 10 cts. No. 2, Ornamental Trees, etc., with plate, 25 cts.; plain, 15 cts. No. 3, Greenhouse; No. 4, Wholesale, and No. 5, Catalogue of Roses, Free. Address—**ELLWANGER & BARRY, Rochester, N.Y.**

## THE Maryland Horticultural Society

WILL HOLD ITS  
**ANNUAL EXHIBITION**

OF  
Plants, Flowers, Fruits and Vegetables,

IN THE  
**ARMORY OF THE 5th REGIMENT,**

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A PRIMARY SCHOOL, AN ACADEMY AND COLLEGIATE INSTITUTE, FOR PUPILS OF BOTH SEXES, Lombard Street, near Eutan, Baltimore, Md.

The fifteenth year of this Institution will begin Ninth Month (September) 4th, 1878.

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Circulars containing full information may be obtained at book-stores or at school-rooms.

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**FRUIT TREES** of all kinds; an extensive stock, viz: Plums, Cherries, Apricots. Apples suitable to the South, &c.

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Large importations direct from the leading growers in Holland. First-quality Bulbs, Hyacinths, Lilies, Tulips, &c.

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**REFERENCES.**—Hon. Geo. Brent, Court of Appeals, Md. Hon. Barnes Compton, State Treasurer, Md. Hon. F. Stone, Port Tobacco, Md.,—all who know us personally. [s-2m]

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MANUFACTURERS OF

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AND

## DISSOLVED PURE RAW BONE,

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Six One-Gallon Pails, (in one case,) 75 cts. ½ gal. .... \$4.50	One Half-Barrel, 24 Gallons, 55 cts. ½ gal. .... \$13.20
Three Two-Gallon Cans, (in one case,) 67 cts. ½ gal. .... 4.00	One Barrel, 44 Gallons, 50 cts. .... 22.00
Two Five-Gallon Cans, (in one box,) 60 cts. ½ gal. .... 6.00	Ten-Pound Pail Roofing Cement, for bad leaks .... 1.00

Rocky Mountain Paint, dry, per 100 lbs. .... \$1.50.

Dear Sir—This Paint consists of SILICA, 60 per cent., making it fire-proof; PEROXIDE OF IRON, 8 per cent., which gives it color; ALUMINI WHITE, to suspend the other minerals in solution; OXIDE OF MANGANESE, MAGNESIA and a little organic matter. Our examination of your Mineral Paint shows that it possesses a very durable character and not liable to alterations in whatever manner it may be employed. We regard it as a Paint of superior character, of fine body and color, and very durable.

Respectfully yours,

BOOTH & GARRETT, U. S. Assayers, Phila. Mint.

**AMERICAN VERMILION WORKS,**

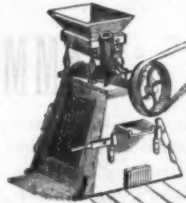
**126 W. PRATT STREET, BALTIMORE,  
MANUFACTURERS.**

**WE TAKE PLEASURE IN RECOMMENDING  
TO FARMERS FOR THEIR WHEAT  
CROP THIS FALL THE USE OF**

### A. G. GRIFFITH'S Great American Fertilizer.

It is composed really of the extract of Horse-Manure, obtained by the use of an acid which burns up the straw and fibrous matter contained in the horse-manure, without the loss of a single atom of plant-food. This mass, thus prepared, is in a condition to dissolve bone, which is added to the extent of about 800 lbs. to the ton. It has usually DOUBLED THE CROP. His office is—

**89 W. BALTIMORE STREET. [s-2t]**



### FARM GRIST-MILL.

The Grinding parts are

### STEEL.

It is adapted to all kinds of horse-powers. It grinds all kinds of Grain rapidly. It is simple, cheap and durable.

SEND FOR DESCRIPTIVE CIRCULAR.

**Wm. L. Boyer & Bro.**

2101 Germantown Avenue, Philadelphia, Pa.

Also manufacturers Celebrated Union Horse-Power, &c.

## Dissolution of Copartnership.

BALTIMORE, March 19th, 1878.  
The Copartnership heretofore existing between the undersigned, under the name of **J. J. TURNER & CO.**, is this day **DISSOLVED**, by mutual consent. Either will sign in liquidation.

J. J. TURNER,  
J. Q. A. HOLLOWAY.

The undersigned, engaged since 1858 in the manufacture of **FERTILIZERS**, as a member of the firm of **J. J. & F. TURNER**, BY WHOM the formulas and processes of manufacture of

## "EXCELSIOR" AND "AMMONIATED PHOSPHATE"

Were originated, and since 1864 a member of the late firm of **J. J. TURNER & CO.**, relying upon his experience and personal reputation, hitherto acquired in the uniform excellence of these fertilizers, offers them **IN HIS OWN NAME** to the agricultural public.

Having secured the works of the old firm, 111 McElderry's Wharf, with the complete machinery, specially constructed for their uniform manipulation, he will continue the manufacture of **EXCELSIOR** and **AMMONIATED PHOSPHATE** on his own account, with his office adjoining the works, where he will be pleased to see his friends and patrons, assuring them that the **FERTILIZERS** manufactured BY HIM shall be of the same uniform and high standard quality as sold by the old firms since their introduction.

## TO WHEAT GROWERS! REDUCTION IN PRICE OF



The most concentrated, universal and durable **FERTILIZER** ever offered to the Farmer—combining all the stimulating qualities of Peruvian Guano and the ever-durable fertilizing properties of Bones, in fine dry powder prepared expressly for drilling, and can be applied in any quantity, however small, per acre. An application of 100 pounds of "EXCELSIOR" is equal to 200 pounds of any other fertilizer or guano, and therefore fully 100 per cent. Cheaper.

**Uniformity of Quality Guaranteed.** Every Bag of Genuine Excelsior is branded as above, the Analysis and my name in Red Letters. Price \$46 per Ton.

**JOHN Q. A. HOLLOWAY,**

Originator and Manufacturer.

No. 107 McElderry's Wharf.

THE AMERICAN FARMER.

# TO WHEAT CROWERS.

1858



1878

Forming the most concentrated, universal and durable FERTILIZER ever offered to the Farmer—combining all the stimulating qualities of Peruvian Guano and the ever-durable fertilizing properties of Bones, in fine dry powder, prepared expressly for drilling, and can be applied in any quantity, however small, per acre. It is the opinion of many close-calculating Farmers, after TWENTY YEARS experience in testing it side by side with other popular fertilizers, that an application of 100 pounds of "EXCELSIOR" is equal to 200 pounds of any other fertilizer or guano, and therefore fully 100 per cent. cheaper.

**Uniformity of Quality Guaranteed by the Manufacturers.**

Farmers can only be secure from inferior imitations by seeing that every BAG is branded as above, with the **Analysis** and **our name** in **Red Letters**.

Price \$50 per ton.

J. J. TURNER & CO., 42 Pratt St., Baltimore.

**GRIFFITH & TURNER,**

Manufacturers of and Dealers in

**Agricultural Implements and Machinery,**

**Garden and Field Seeds, Fertilizers, Etc.**

Nos. 41 and 43 N. Paca Street, BALTIMORE.

**THE BEST**

**HAGERSTOWN**

Grain, Seed



**FERTILIZING**

**DRILL.**

**CALL AND EXAMINE BEFORE PURCHASING.**

This Drill is strong, well-built, and distributes the Grain, Grass Seed and Fertilizers with great accuracy. Railway and Sweep Horse Powers, Threshers and Separators, Champion Rye Threshers, Clover Hullers, Farm Wagons, Chopping Mills, Maryland Straw and Fodder Cutters and Masticators, Corn and Cob Crushers, Corn Shellers for Horse and Hand Power, Cider Mills and Presses, Cahoon Seed Sowers, Patent Steel Barb Fence Wire, does not rust, stain or decay; a complete barrier to the most unruly stock. Steel and Cast-Iron Plows and Plow Castings. A general assortment of Agricultural Implements, Field and Garden Seeds. Send for Circulars and Price-Lists.

**GRIFFITH & TURNER, 41 & 43 N. Paca St., Baltimore.**

THE AMERICAN FARMER.

# ASBESTOS. Indestructible by FIRE or ACIDS.

## Do Your Own Painting and Roofing.

H. W. JOHNS' Celebrated ASBESTOS LIQUID PAINTS, ready for use—finest quality, for outside and inside work. The best ROOF PAINT in the world—makes leaky roofs and walls water-tight. **FIRE-PROOF PAINT.** OUR PACKAGES CONTAIN FROM 10 to 12 PER CENT. MORE PAINT than is usually sold for same quantity. Also ASBESTOS ROOFING, light, strong and easily applied. Boiler Covering, Steam Packing, &c. Also, the HYDRO-PNEUMATIC FIRE EXTINGUISHER. The ZAPPLER FIRE EXTINGUISHING COMPOUND. ROW'S FIRE ESCAPE. The most simple and effective enemies of Fire known. **SEND FOR CIRCULARS.**

\$6 1y

F. H. WILSON, 51 Lexington St., Baltimore, Md.

## Baltimore Stove House.

ESTABLISHED 1851.

We beg leave to inform our old acquaintances and friends that we are still at the old stand, and now offer goods

—TO EVERYBODY AT WHOLESALE PRICES.—

A FULL LINE OF

COOKING and HEATING STOVES, FURNACES and RANGES

ALSO REPAIR PIECES OF EVERY DESCRIPTION.

**THE BEST FIRE-PLACE HEATERS OF OUR OWN MAKE.** If you want anything in our line, call and see us or send for circular. **SLATE MANTELS IN GREAT VARIETY.**

B. C. BIBB & SON.

(Successors to BIBB & CO.)

Special favors to Churches, Ministers, Schools, &c., &c.

39 & 41 Light Street, BALTIMORE.

## M'GINNIS HARROW.

From Mr. J. D. Guthrie, of Shelby county, Ky., State Grange Purchasing Agent, and famous grower of Long-Wooled Sheep.

SHELBYVILLE, Ky., May 6th, 1878.

MESSRS. M'GINNIS, TAYLOR & HOLDERBY:

GENTLEMEN.—In reply to your request for my opinion, I take pleasure in saying the M'Ginnis Harrow has given universal satisfaction.

It pulverizes deeply, and its smoothing capacity is equal to any Harrow I have ever tried.

It stands unrivaled for destroying the toughest sods with its knife-like teeth, perfectly reducing the sod with two harrowings; presenting a thorough seed-bed for any kind of grain or seed.

Its draft is much lighter than the ordinary Harrow.

It is equal to the Thomas Harrow in lightness of draft, while it possesses decided advantages over the Thomas in DEEP PULVERIZATION, STRENGTH AND DURABILITY.

I have said thus much from observation of its working on the field.

While the Thomas Harrow is better adapted for the shallow covering necessary for very small seeds, for general purposes I think the M'Ginnis Patent is WITHOUT A RIVAL.

Yours truly,

J. D. GUTHRIE.

## RHODES' Standard Manures,

PREPARED FOR ALL CROPS.

JNO. M. RHODES & CO.

82 South Street, BALTIMORE.



THE AMERICAN FARMER.

## J. J. TURNER & CO.'S

AMMONIATED

**BONE**



SUPER

**PHOSPHATE.**

ANALYSIS.	
Ammonia.	3.30
Soluble Phosphate of Lime.	23.91
Bone Phosphate of Lime.	3.15
Potash.	4.07

Composed of the most concentrated materials, it is

**Richer in Ammonia and Soluble Phosphates**  
 THAN ANY OTHER FERTILIZER SOLD.

And is made with the same care and supervision as our EXCELSIOR, its only competitor.—  
 Uniform quality guaranteed. Fine and dry, in excellent order for drilling. Packed in bags.

Farmers can only be secure from inferior imitations by seeing that every Bag is branded  
 with our NAME and the ANALYSIS in RED LETTERS.

PRICE \$40 per ton. J. J. TURNER & CO., 42 Pratt St., Baltimore.

## LUMBER.

**Thomas Matthews & Son,**

88 N. High St. and Cor. Canton Ave. and Albemarle St., Baltimore.

WHITE PINE and YELLOW PINE LUMBER FOR BUILDING.

**ROUGH AND DRESSED LUMBER.**

HARDWOOD FOR WHEELWRIGHTS and CABINET-MAKERS. SHINGLES,  
 LATHS, PALES, ETC., at LOWEST PRICES. au-ly

## COULSON'S Pure Ground Bone,

STRICTLY PURE  
 BONE MEAL.

Liberal Inducements offered Farmers and others at the Mill, Jenkins Lane,  
 North of Greenmount Cemetery.

**EDW'D L. COULSON,**

Office, 32 Light Street.

## THE AMERICAN FARMER.

### J. M. LAROQUE'S ANTI-BILIOUS BITTERS W. E. THORNTON PROPRIETOR BALTIMORE.

A POSITIVE CURE for Headache, Dyspepsia, Nervousness, Constipation and all bilious diseases may be found in J. M. LAROQUE'S ANTI-BILIOUS BITTERS. 25 cents a paper, \$1.00 a bottle.  
W. E. THORNTON,  
Baltimore and Harrison Streets, Baltimore.

J. M. LAROQUE'S ELIXIR OF CALABATA BARK, a pleasant Cordial, which strengthens the weak and debilitated, is an excellent preventive of Fever, Fever and Ague, &c., and a great Tonic, especially applicable to those nervous diseases incident to Females. \$1.25 a bottle.  
W. E. THORNTON,  
Baltimore and Harrison Streets, Baltimore.

THE ORIGINAL AND ONLY GENUINE FLORIDA WATER OF J. M. LAROQUE, delightfully refreshing and purifying, supersedes Cologne and Bay Rum. An indispensable requisite for the bath and toilet. Price reduced to 50 cents a bottle.  
W. E. THORNTON,  
Baltimore and Harrison Streets, Baltimore.

PEARLY WHITE TEETH, ROSY RED GUMS, A FRAGRANT FLOWERY BREATH, are the invariable results of the use of J. M. LAROQUE'S LIQUID ODONTINE, the standard Tooth Wash of the elite and fashionable. 50 cents a bottle.  
W. E. THORNTON,  
Baltimore and Harrison Streets, Baltimore.

If your nearest Druggist does not have the above articles, write direct to the Proprietor, enclosing the advertised price, and the medicine will be sent you by mail or express. Be particular to write your name and address plain, and give nearest express office.  
W. E. THORNTON,  
Baltimore and Harrison Streets, Baltimore.

## Berkshires

OF THE

## Best Blood & Quality

BRED AND FOR SALE BY

Alex. M. Fulford,  
BEL AIR, MARYLAND.

### VIRGINIA FEMALE INSTITUTE, STAUNTON, VIRGINIA.

REV. R. H. PHILLIPS, Rector, assisted by a full corps of experienced officers. The 24th annual session will commence September 11th, 1878. Buildings spacious, with gas and hot and cold water. Heated by steam. Extensive grounds. Patronage from 19 States. School first-class. Terms reduced. Seven churches within 3 minutes' walk. For catalogue address the Rector.

## Lee's Prepared Agricultural Lime.

What It Has Done For Corn.

ROCK CREEK, Somerset Co., Md., July 26, 1878.  
L. J. WARREN, Esq.,

DEAR SIR:—I composted the Prepared Agricultural Lime with woods mould, and used about 300 lbs. to the acre in the hill. My Corn is better than at the same time last year, although I used Peruvian Guano. My neighbors say I have the best Corn and fairest prospect for good results they have seen for many years on the same piece of ground. The prospect is indeed pleasing, although I cannot divine the actual results.

Very truly yours, &c., WM. A. COLLINS.  
[For what it has done for Wheat, see *American Farmer* for August, page 303.]

## Forest Rose Strawberry Plants

BY AND FOR THE MILLIONS

Ready now, from the original plantation. Per doz. \$1.00; 100, \$3.00; 1,000, \$25.00; 5,000, \$100; 10,000, \$175. Also, Gregg Raspberries. Send for Price-list for Fruit and Ornamental Trees, Small Fruit, etc.

LEO WELTZ, Wilmington, O.

## NEW STRAWBERRY

**SHARPLESS.** The largest, best flavored, and most productive berry ever produced. Berry raised with ordinary culture from plants set in September 12 1/4 in. in circumference, (weight 2 1/4 oz.) and on the same fruit-stem four others from the size of a Hickory nut to that of a walnut. See sworn statement and recommendations in my circular, which is free to all sending their name on a postal card.  
Address J. A. DILLON, Florist, Bloomington, Pa.

## Pear Trees for the Million.

Largest stock in the West. Splendid quality—carefully selected, carefully dug, carefully packed to go safely any distance. A full assortment of *Apples, Cherries, Plums, Peaches, Quinces, and other Fruit Trees, Small Fruits, Evergreens, Shrubs, Roses, &c.* at prices to suit the times. Price-list mailed to applicants.

Address R. G. HANFORD & SON,  
Columbus Nursery, COLUMBUS, OHIO.

## 200,000 TWO-YEAR-OLD DWARF PEAR TREES.

Budded on best French Quince Stocks, and of prime quality. The largest and best stock in the United States. Assortment large and complete. Best market sorts. Prices low by hundred or thousand. "Dwarf Pears; their Culture and Management," mailed free to applicants. Address R. G. HANFORD & SON,  
Columbus Nursery, COLUMBUS, OHIO.

## EASTERN SHORE NURSERIES

Low Prices for Fall of 1878.

**APPLE TREES.**—First class 5 to 8 feet, 10 cents each, \$9 per hundred. Varieties suited to Maryland and the South.

**PEAR TREES.**—Dwarf and Standard. Fine stock at very low prices.

**QUAKE VINES.**—Concord, 3 years, Strong, \$3 per 100, \$18 per 1,000. 2 years, extra, \$2 per 100, \$15 per 1,000. Thirty other varieties at proportionately low prices.

All kinds of Small Fruit, Plants, Shade and Ornamental trees, at very low rates. Send for Price-List and be astonished, as I intend to sell stock as low as a good article can be grown.

J. W. KERR, Denton, Caroline Co., Md.

**DAMP WALLS**

CURED by the application of English Petrifying Liquid, and inside walls that are damp can be papered on at once. *Leaky Cisterns* can be effectually cured. *A fresh importation on hand.*

WM. WIET CLARKE, 61 S. Gay St., BALTIMORE.

**FOR SALE!**

FARM in Howard Co., 19 miles from Baltimore and 1/2 mile south of Frederick Pike and adjoining Hayfield Mill. Containing 120 acres, good dwelling, Barn and other out-buildings. Fruit of all kinds, pasture, &c. Terms to suit. For particulars apply to

J. S., Care of American Farmer.

**PALLISER'S MODEL HOMES.**

New Edition.

100 pages, 30 plates 5x8 inches, giving 20 designs for Model Cottages, Farm and Country Houses, Farm Barn and Hennerly, Stable and Carriage House, School House, Bank and Library, Masonic Association Building, Town Hall and three Churches, together with descriptive specifications and a large amount of miscellaneous matter, making a very valuable book for every one intending to build. Price \$1. For sale by all book-sellers, or sent postpaid by the publishers.

Palliser, Palliser & Co., Architects.  
BRIDGEPORT, CONN.

\$5 to \$20 per day at home. Samples worth \$5 free.  
Address STINSON & Co., Portland, Maine.

**PERUVIAN GUANO.**

We have now on hand a large stock of No. 1 Peruvian Guano, "Lobos," with the following analysis guaranteed:

Ammonia .....	6 per cent.
Bone Phosphate of Lime .....	40 "
Potash .....	4 "

The Guano is perfectly dry, entirely free from lumps, and ready for the drill without any labor whatever. Purchasers will please see that the bags have Hobson, Hurtado & Co.'s name stamped on them, they being the only Agents of the Peruvian Government.

VOSS BROTHERS,

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No. 42 Second Street, Baltimore, Md.

**Trees For Fall Planting.**

At our PATAPSCO NURSERIES we have a large and select stock of APPLE, PEAR, PEACH, CHERRY and PLUM TREES, both standard and dwarf. APRICOTS, NECTARINES, GRAPE VINES, BLACKBERRIES, RASPBERRIES, CURRANTS, GOOSEBERRIES, STRAWBERRIES, &c., &c., in great variety. Also a LARGE AND CHOICE COLLECTION of

**SHADE TREES,**

Consisting in part of NORWAY, SUGAR, SYCAMORE, SCARLET, ASH-LEAVED and SILVER MAPLES, LINDENS, POPLARS, HORSE-CHESTNUTS, WHITE and CUT-LEAVED BIRCH, &c., VINES, CLIMBERS and DECIDUOUS SHRUBS. Also a large and varied collection of

**EVERGREEN TREES**

For LAWN DECORATION and HEDGING PURPOSES. Catalogues free. Trees can be safely shipped to any point. Address,

**CROMWELL & CONGDON,**

Live Agents wanted in every Section.

(27-46)

51 Light Street, BALTIMORE.

**DORSEY, MOORE & CO.**

MANUFACTURERS' AGENTS AND DEALERS IN ALL KINDS OF

**Agricultural Implements and Machinery.**

AGENTS FOR THE CELEBRATED

Sturdebaker Farm and Freight WAGONS, Taylor Manufacturing Co.'s Steam Engines, Empire Threshers, Daniels' Hay and Straw Fodder Cutter, (best in the market,) Empire Grain Drills, and Adamant Plows. Grain Cradles, Seed Sowers, Cultivators, Harrows, &c., &c.

We are the ONLY manufacturers of Montgomery's Celebrated Improved Rockaway and Little Champion Wheat Fans.

52 S. CALVERT STREET,

Send for circulars.

BALTIMORE, MD.

**U. G. MILLER & CO.**

Ashland, Baltimore Co., Md.

Manufacturers of Plows, Harrows, Cultivators, Drags, Shovel Plows,

And Castings of every description made to order.

The Celebrated Oxford Plows Made to Order.

Repairs promptly attended to. A liberal discount made to those who purchase to sell again. The patronage of the public is respectfully solicited, and we pledge ourselves to use every effort to render satisfaction.

**VIRGINIA LANDS.**

UPPER JAMES REAL ESTATE AGENCY,

**BY WILLIAM HOLMAN.**

CARTERSVILLE, Va.

Who offers for sale upwards of 12,000 acres of land, lying in one of the most desirable regions of Eastern Virginia.

Catalogues sent on application.

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**Square Box Butter Prints,**

FOR SALE BY

**Geo. Chipman & Co.**

Cor. Calvert and Lombard Sts.,

**BALTIMORE, MD.**

Also, Brooms, Buckets, &amp;c.

**WATER WHEELS.**

THE UNEQUALLED JAS. LEFFEL DOUBLE

**TURBINE WATER WHEEL.****PORTABLE AND STATIONARY****STEAM ENGINES, STEAM BOILERS,****SAW, FLOUR AND GRIST MILLS,****MACHINE MOULDED MILL GEARING.****SHAFTING, PULLEYS AND HANGERS**

Of Improved Designs, A Specialty

**Address, POOLE & HUNT,**Send for Circulars. **BALTIMORE, MD.****GILPIN'S VEGETABLE LIVER PILLS**

Are prepared, with great care, from medical plants, are coated with sugar that they may be taken by the smallest child and upon the most delicate stomach; are intended especially to act upon the Liver—thereby relieving all such diseases as COSTIVENESS, HEADACHE, PALATYIS, DYSPEPSIA, COLDS, JAUNDICE, and all diseases of a Bilious origin. No better evidence can be offered in favor of these Pills than the very fact that where their ingredients are known to family physicians, they are using them in their private practice. We append the following from one of our most prominent physicians:

OAKLAND, June 28, 1869.

DR. GILPIN—After carefully examining the formula of your Sugar-Coated Pills, I feel it but justice to say, that the combination is certainly perfect, and comprises the only remedies I ever believed were the proper ones to be used in diseases of a bilious origin. I shall take pleasure in recommending them not only to my patients, but the entire medical profession.

Yours truly,

J. M. WISTAR, M. D.

From one of the leading retail druggists of West Virginia:

WESTON, W. VA., June 18, 1869.

MEMRS. CANBY, GILPIN & Co.—Gents: Please send by express twelve dozen Gilpin's Vegetable Liver Pills. I have the most flattering accounts from all who have used them, and believe the day is not far distant when they will supersede all others.

Yours,

F. M. CHALFANT.

We could fill several pages with certificates, &c., from prominent men throughout the country, but prefer to let the Pills in the future, as they have in the past, rest entirely on their own merit—knowing that wherever they are known their use will pass down from generation to generation.

**GILPIN'S VEGETABLE LIVER PILLS** are sold by all respectable Druggists and Country Storekeepers throughout the United States and Canada.

**Principal Depot, CANBY, GILPIN & CO., Baltimore.****NOAH WALKER & CO.**

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**CELEBRATED CLOTHIERS****OF BALTIMORE, MD.**

Announce the introduction of a plan of ordering

**CLOTHING AND UNDERWEAR BY LETTER,**

to which they call your special attention. They will send, on application, their improved and accurate

**RULES FOR SELF-MEASUREMENT,** and a full

line of samples from their immense stock of

**Cloths, Cassimeres, Coatings, Shirtings, &c., &c.**

A large and well-assorted stock of **READY-MADE CLOTHING** always on hand, together with a full line of **FURNISHING GOODS.**

**NOAH WALKER & CO.**

Manufacturers and Dealers in Men's and Boys' Clothing and Furnishing Goods, either Ready-Made or Made to Order.

**Nos. 165 and 167 W. BALTIMORE STREET, Baltimore, Md.**



# ZELL'S

# BONE SUPER-PHOSPHATE.

# ZELL'S ECONOMIZER.

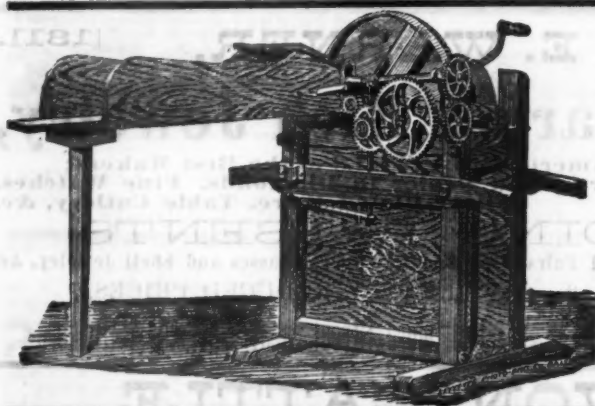
Price \$35 per Ton at Baltimore.

## UNRIVALLED FOR THE WHEAT CROP.

## Dissolved Bone Phosphate.

**P. ZELL & SONS, Manufacturers.**

**No. 30 SOUTH STREET, BALTIMORE.**

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**J. C. VALIANT & CO.**

## Paper Hangings & Window Shades,

## Upholstering and Curtain Decorations.

WINDOW AWNINGS, MOSQUITO NETS, CORNICES, &c.

Orders by mail promptly attended to. Samples freely sent, and first-class workmen sent to all parts of the country.

**183 MADISON AVENUE.**

(Bet. Orchard and Biddle Sts.)

BALTIMORE, MD.

# A Complete Wheat Fertilizer.

## Ammoniated Phosphate & Dissolved Bone,

Prepared by  
**The Pacific Guano Company,**  
**EXPRESSLY FOR WHEAT.**

This article is very rich in AMMONIA, SOLUBLE PHOSPHATE and POTASH.

WE ALSO OFFER

**Dissolved Bone Phosphate,**  
**Soluble Pacific Guano**  
**And Pure Bone-Dust.**

These Articles will Drill Readily.

**JOHN S. REESE & CO.**

GENERAL AGENTS,

No. 4 S. Holliday Street, Baltimore.

Established]

**A. E. WARNER,**

[1811.

Manufacturer of

**Silver Ware & Rich Jewelry,**

English, Swiss and American WATCHES of the Best Makers;  
 Importer and Dealer in Diamonds, Fine Watches,  
 Silver-Plated Ware, Table Cutlery, &c.

**WEDDING PRESENTS,**

Premiums for Agricultural Fairs, Fine Bronzes, Opera Glasses and Shell Jewelry, &c.

All of which is offered at GREATLY REDUCED PRICES.

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No. 135 W. Baltimore Street, near Calvert, Baltimore.

# DEVON CATTLE

## AND SHROPSHIRE SHEEP.

**FOR SALE**—Thoroughbred young **Devon Bulls** and young Rams of the Shropshire breed; several of the young bulls were sired by the IMPORTED BULL MASTER JAMES, the winner of several prizes in England; amongst others the first prize given to his class at the show of the Royal Agricultural Society of England, held at Birmingham in July, 1876. The young Rams were all sired by Imported Rams, purchased at high figures, from one of the very best flocks in England, and several of them are out of Ewes recently imported from the same flock as the Rams, the others being out of Ewes obtained from the celebrated flock of Mr. T. Conyer, of Waldberg, near Haverstraw, in the State of New York. Also, one Imported Shropshire Ram, now a little over three years old. Particulars as to pedigrees, prices, &c., may be obtained by applying to

**WILLIAM U. KENNON,**

Sabot Island P. O., Goochland County, Virginia.

**FOR SALE.**  
**Shropshire Sheep.**  
**HEREFORD CATTLE.**

WM. HENRY DECOURCY.  
Queenstown, Md., July 25th.

**Farms for Sale!**

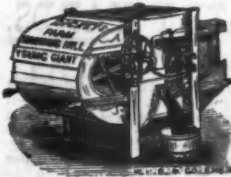
**In Westmoreland Co., Va., Three Miles from Court-House,**

Six miles from steamboat landing. Contains 650 acres; upwards 200 cleared; 40 acres good meadow land. A large quantity excellent Pine, Chestnut, Oak, Poplar, Cedar, &c. Steam Saw Mill on the place. Soil—best quality of forest land, easily cultivated; highly susceptible of improvement; grows clover and other grasses well. Water pure, excellent, and in all the fields abundant. Dwelling-house, 2 basement rooms and 4 above; other necessary buildings and 2 barns. Perfectly healthy. Chills and intermittents unknown. Churches, Schools, Stores, Shops, &c., all convenient. \$8 per acre. \$2,500 cash; balance in 1 and 2 years.

140 acres adjoining the above; 60 arable. Several acres meadow land. Soil good. Water good, very healthy, and might be made a nice little farm. 3 to 4 miles from navigable water. No improvements, except cabins. Price \$500 cash; or \$560—\$250 cash, balance in 12 months. Cord wood on the place would soon pay for it.

D. M. WHARTON,  
Montrose, Westmoreland, Va.

**THE BEST FANNING MILL IN THE WORLD, OBTAINED CENTENNIAL AWARD AND GRAND MEDAL.**



**BUT THE  
A. P. DICKEY  
FANNING MILL**

No good Farmer can afford to market dirty grain.

A medium quality well cleaned brings a better price than the nicest grade in dirty condition.

**CROMWELL & CONGDON, Agents,**

51 Light Street, Baltimore, Md.

Dealers in every description of

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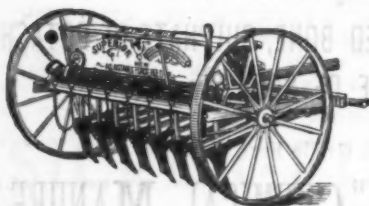
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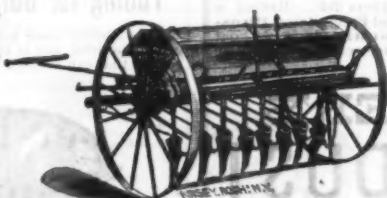
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Gents' Buff Pegged Boots.....	2 75	Russia Leather Water Proof Boots.....	3 50
Gents' Calf Pegged Boots, Extra Quality.....	3 50	Water Proof Hunting Boots.....	4 00
Gents' Calf Hand Sewed Boots.....	4 25	Gents' Split Leather Boots.....	2 50
Gents' Prime Stitched Calf Boots.....	4 50	Gents' Extra Heavy Split Leather Boot.....	3 00
Gents' Calf Pegged Boots, Extra Quality.....	3 50		

### LADIES' DEPARTMENT.

Ladies' Lasting Congress Gaiters.....	\$1 00	Ladies' French Leather Button, Extra Quality.....	2 25
Ladies' Lasting Balmoral Gaiters.....	1 00	Ladies' French Kid Button Boots.....	2 75
Ladies' Lasting Kid Foxed Gaiters.....	1 25	Ladies' Kid Lace Balmorals.....	3 00
Ladies' Lasting Brim Kid Foxed Gaiters.....	1 50	Ladies' Morocco Balmorals, high cut.....	1 50
Ladies' Lasting Kid Foxed, Extra Quality.....	2 00	Ladies' Morocco Balmorals, high cut, Extra Qual.....	1 75
Ladies' Lasting Slippers.....	60	Ladies' Morocco Balmorals, all styles.....	1 25
Ladies' Lasting Buskins Slippers.....	75	Ladies' Calf Pegged High Cut Balmorals.....	1 15
Ladies' Kid Heeled Slippers.....	75	Ladies' Calf Pegged High Cut, Extra Quality.....	1 37
Ladies' Kid Croquet Slippers.....	1 15	Ladies' Calf Sewed High Cut Balmorals.....	1 75
Ladies' Kid Newport Ties, Extra Quality.....	1 50	Ladies' Calf Sewed Extra Quality Balmorals.....	2 00
Ladies' Lasting Button Boots, (plain).....	1 50	Goat Leather Balmorals, Heavy.....	1 25
Ladies' Lasting Button Boots, Extra Fine.....	2 00	Ladies' Buff Pegged Shoes.....	1 00
Ladies' Lasting Kid Foxed Button.....	1 50	Ladies' Buff Pegged, Extra Quality.....	1 25
Ladies' Lasting Kid Foxed Button, Extra Fine.....	2 25	Ladies' Heavy Split Balmorals.....	90
Ladies' French Leather Button Boots.....	1 75		

### MISSES' AND BOY'S DEPARTMENT.

Misses' Lasting Balmorals, Plain.....	75@ 1 00	Misses' Kid Foxed Button.....	1 50@ 2 00
Misses' Lasting Balmorals, Extra Quality.....	1 15@ 1 25	Misses' Calf Pegged Balmorals.....	1 00@ 1 25
Misses' Lasting Kid Foxed Balmorals.....	1 25@ 1 50	Misses' Calf Sewed Balmorals.....	1 35@ 1 50
Misses' Fine Morocco Balmorals.....	1 25@ 1 50	Ladies' and Misses' White Kid Boots, Slippers and Fancy shoes of all styles on hand.....	
Misses' Fine Kid Balmorals.....	1 37@ 1 50	Boy's Heavy Kip Boots.....	1 50@ 1 75
Boy's Calf Pegged and Sewed Balmorals.....	\$1 25@ 1 50	Boy's Kip Boots, Extra Quality.....	2 00@ 2 25
Boy's Calf Sewed Congress Gaiters.....	1 50@ 1 75	Boy's Fine Pegged Boots.....	1 75@ 2 00
Boy's Calf Pegged Congress.....	1 25@ 1 40		

We can now also send by mail single pairs of shoes or packages to any address, at 18 cents per pair to any part of the United States. All orders should be accompanied with the money, Post-Office Money Order, or in Registered Letters, or C. O. D. by Express.

We guarantee to give satisfaction, and anything purchased of our house which may not suit after purchase, we will exchange or refund the money within six months after purchase. Send Stamp for Printed Catalogue.

The Customer's Confidence is Never Abused.

Weinberger's C. O. D. Shoe House,

81 N. EUTAW STREET, BALTIMORE.







# Chesapeake Chemical Works.

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## **OIL VITRIOL.**

**MANUFACTURERS AND MANIPULATORS OF PHOSPHATES  
ON ORDERS AND FORMULAS FURNISHED BY  
OUR FRIENDS.**

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Having completed extensive improvements and additions to our Works, giving us increased facilities, we are now prepared to execute orders with greater promptness, and deliver goods in much better mechanical condition than heretofore.

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We offer to the Trade the following Goods, all of which are absolutely Free from Adulteration:

### **DISSOLVED GROUND BONE,**

Containing 3 per cent. of Ammonia.

### **DISSOLVED SOUTH AMERICAN BONE ASH.**

Containing 40 to 44 per cent. Soluble Bone Phosphate.

### **DISSOLVED SOUTH CAROLINA PHOSPHATE.**

Containing 27 to 30 per cent. Soluble Bone Phosphate.

To meet the demand for a high-grade Fertilizer, we are offering **SLINGLUFF'S NATIVE SUPER-PHOSPHATE**—prepared entirely from Animal Bone—highly ammoniated.

Also, **SLINGLUFF'S No. 1 AMMONIATED SUPER-PHOSPHATE**. This we can confidently recommend as one of the best fertilizers sold in the market at a low price.

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OFFICE, 155 W. Fayette Street.

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FOR THE WHEAT CROP.

## SOLUBLE SEA ISLAND GUANO,

Well-known and of undoubted excellence.

## EMPIRE GUANO,

A high-grade Fertilizer of known merit.

## Ammoniated Alkaline Phosphate,

An article specially prepared for Wheat, and sold on satisfactory terms to Grangers. Endorsed by the Patrons, who have used it for the past four years. For sale by Grange Agents at RICHMOND, NORFOLK, PETERSBURG, ALEXANDRIA, and BALTIMORE.

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IN STORE AND FOR SALE.

 SPECIAL COMPOUNDS PREPARED ON ORDERS.

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